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IRT NO. DOT-TSC NHTSA-80-34

DOT-HS-805 669

PAST AND FUTURE TRENDS IN AUTOMOBILE SALES

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Philadelphia PA 19104

JULY 1981
FINAL REPORT

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Prepared for:

U.S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Office of Research and Development
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80-34

Technical Report Documentation Page

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.
DOT-HS-805 669		

4. Title and Subtitle	5. Report Date
PAST AND FUTURE TRENDS IN AUTOMOBILE SALES	July 1981
	6. Performing Organization Code: DTS-221
7. Author(s): Colin J. Loxley, Priscilla Luce, Tim Osiecki, Kate Rodenrys	8. Performing Organization Report No.: DOT-TSC-NHTSA-80-34
9. Performing Organization Name and Address: Wharton EFA, Inc.* 3624 Science Center Philadelphia PA 19104	10. Work Unit No. (TRAIS): HS161/R1408
	11. Contract or Grant No.: DOT-TSC-1435
12. Sponsoring Agency Name and Address: U.S. Department of Transportation National Highway Traffic Safety Administration Office of Research and Development Washington DC 20590	13. Type of Report and Period Covered: Final Report September 1977 to March 1979
	14. Sponsoring Agency Code: NRD-13

15. Supplementary Notes
*Under contract to: U.S. Department of Transportation
Research and Special Programs Administration
Transportation Systems Center
Cambridge MA 02142

16. Abstract

This report uses the Wharton EFA Motor Vehicle Demand Model (Mark I) and its associates data bases to discuss and analyze past and future trends in the automobile market. While the modeling effort emphasizes the behavioral relationships between variables, much valuable information and insight may be gained from a study of past trends.

Part A analyzes the historical trends, generally covering the 1958-1976 period, with four sections devoted to the data on new registrations, vehicles in operation and vehicle miles travelled, physical characteristics and fuel economy, and prices and costs. The discussion focuses on trends by manufacturer and by size class. Part B presents long-range projections of future trends in sales, prices, stock of vehicles, fuel consumption, etc., based upon economic, energy, demographic, and policy assumptions. Also presented is an alternative simulation that seeks to evaluate the likely broad impacts resulting from extended MPG standards beyond 1985.

DEPARTMENT OF TRANSPORTATION
JUL 9 1982
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17. Key Words	18. Distribution Statement
Auto Sales Analysis Long-Term Demand Projections	Document is available to the public through the National Technical Information Service, Springfield, Virginia 22161

19. Security Classif. (of this report)	20. Security Classif. (of this page)	21. No. of Pages	22. Price
Unclassified	Unclassified	138	

PREFACE

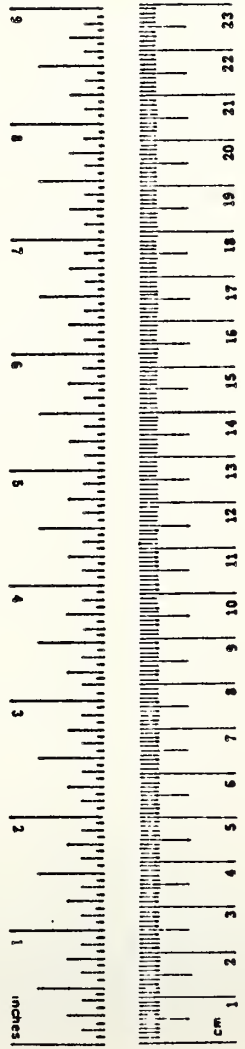
This report uses the Wharton EFA Motor Vehicle Demand Model (Mark I) and its associated data bases to discuss and analyze past and future trends in the automobile market. While the modeling effort emphasizes the behavioral relationships between variables, much valuable information and insight may be gained from a study of past trends.

METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures

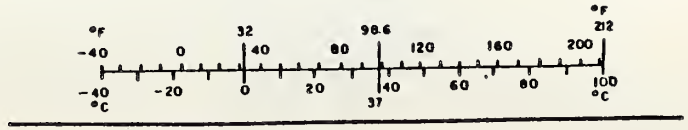
Symbol	When You Know	Multiply by	To Find	Symbol
		LENGTH		
in	inches	*2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
		AREA		
in^2	square inches	6.5	square centimeters	cm^2
ft^2	square feet	0.09	square meters	m^2
yd^2	square yards	0.8	square meters	m^2
mi^2	square miles	2.6	square kilometers	km^2
	acres	0.4	hectares	ha
		MASS (weight)		
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
		VOLUME		
tsp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft^3	cubic feet	0.03	cubic meters	m^3
yd^3	cubic yards	0.76	cubic meters	m^3
		TEMPERATURE (exact)		
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

*1 in = 2.54 (exactly). For other exact conversions and more detailed tables, see NBS Misc. Publ. 286, Units of Weights and Measures. Price $2.25, SD Catalog No. C13.10:286.



Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
		LENGTH		
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
		AREA		
cm^2	square centimeters	0.16	square inches	in^2
m^2	square meters	1.2	square yards	yd^2
km^2	square kilometers	0.4	square miles	mi^2
ha	hectares (10,000 m^2)	2.5	acres	
		MASS (weight)		
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
		VOLUME		
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m^3	cubic meters	35	cubic feet	ft^3
m^3	cubic meters	1.3	cubic yards	yd^3
		TEMPERATURE (exact)		
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F



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PART A
ANALYSIS OF HISTORICAL TRENDS

INTRODUCTION

This part of the report discusses historical trends in the automobile market from 1958 to 1976. The data for this study were originally developed in constructing the Wharton EFA Automobile Demand Model.[1/],[2/] The historical analysis is divided into four sections: New Registrations, Vehicles in Operation and Vehicle Miles Travelled, Physical Characteristics and Fuel Economy, and Prices and Costs.

Throughout this report a major point of comparison is between automobile size classes. These classes are primarily defined by wheelbase as follows:

Subcompact	(up to 100")
Compact	(100+ to 111")
Midsize	(111+ to 118")
Fullsize	(118+")
Luxury	(classified by price).

In addition to the five domestic classes, three foreign classes are defined as subcompact, compact, and luxury.

In the area of new registrations, Section 1 analyzes the behavior of total sales, and the competition between foreign and domestic vehicles. This focus is continued in the following subsection, where sales by size class are discussed. The final subsection compares sales by domestic manufacturer and by size class.

1/ The model and data base are documented in An Analysis of the Automobile Market: Modeling the Long-Run Determinants of the Demand for Automobiles, George R. Schink and Colin J. Loxley, DOT-TSC-NHTSA-79-49.1/DOT-HS-804 847, U.S. Department of Transportation, Transportation Systems Center, December 1979.

2/ Revisions to the Wharton EFA Automobile Demand Model - The Wharton EFA Motor Vehicle Demand Model (Mark I). Colin J. Loxley, et al., DOT-TSC-NHTSA-80-23/DOT-HS-805 567, U.S. Department of Transportation, Transportation Systems Center, December 1980. A revision of the model and data base document in Reference 1.

Section 2 focuses primarily upon the aggregate indicators of vehicles in operation and vehicle miles, with estimates of the automobile stock broken down by size class, and a discussion of scrappage.

The discussion of automobile characteristics in Section 3 is important, both in explaining past trends as well as being a portent for the future. In Sections 3 and 4, the discussion of costs and prices provides explanations of past trends in sales. The primary emphasis here is a thorough study of trends by size class.

1. NEW REGISTRATIONS

1.1 TOTAL, DOMESTIC AND FOREIGN

Automobile sales are highly cyclical, with periods of strong growth interrupted by sharp declines. This well-known characteristic is clearly highlighted in Figures 1-1 and 1-2, which depict the levels and growth rates, respectively, of the total for domestic and foreign new registrations. Figure 1-3 shows the typically close correspondence between auto sales cycles and fluctuations in the general economy, indicated by real disposable income.

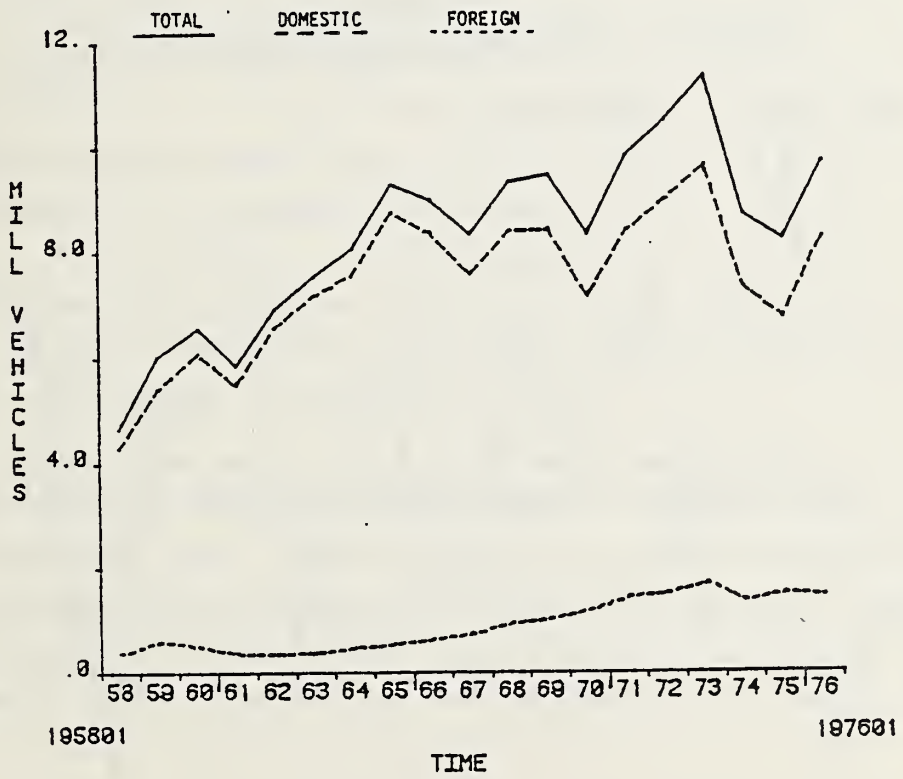

FIGURE 1-1. NEW REGISTRATIONS

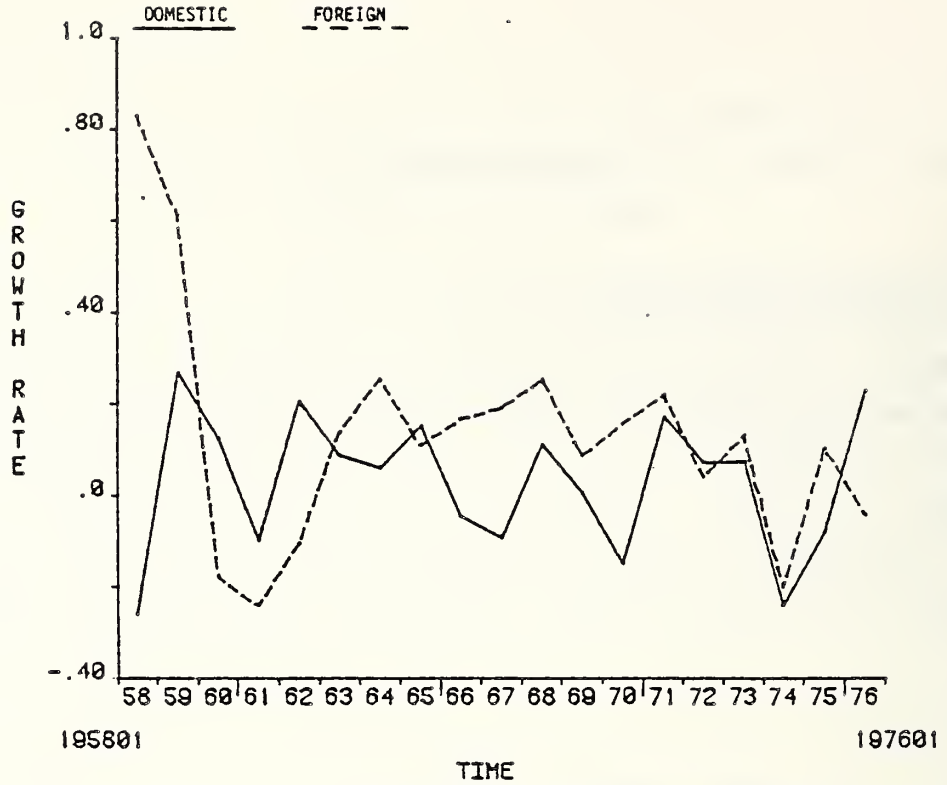

FIGURE 1-2. NEW REGISTRATIONS, GROWTH RATES

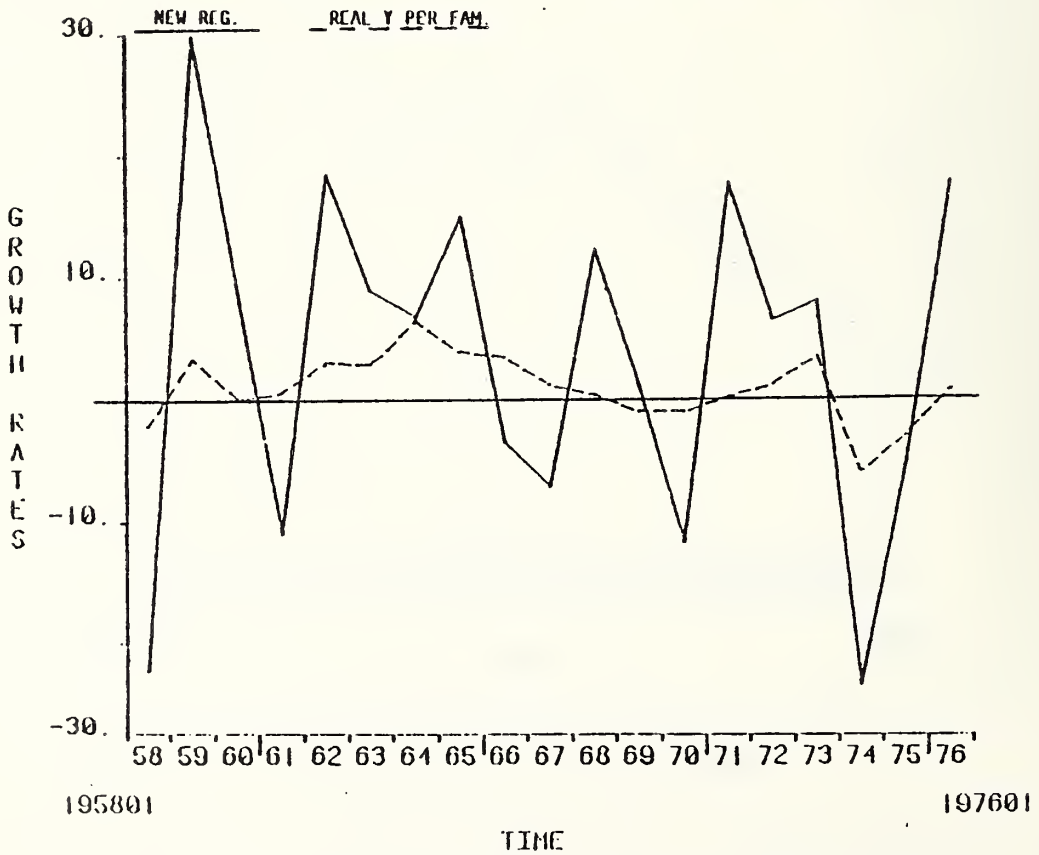

FIGURE 1-3. NEW REGISTRATIONS AND INCOME, GROWTH RATES

Following the severe 1957-58 recession, auto sales grew strongly through the 1960s, interrupted by modest declines in 1961 and 1966-67. Indeed, total new registrations doubled between 1958 and 1966. Throughout this period, the very small (from 5 to 10 percent) foreign component showed a very different pattern. After very rapid growth in the late 1950s, foreign sales declined precipitously during 1960-62 with the advent of the first effective domestic competition in the small car market. This challenge quickly faded, however, and foreign sales thereafter experienced continuous growth through 1973, reaching a peak of over 1.7 million new registrations--over five times the 1962 trough. (See Figure 1-4.)

During this period, foreign sales appeared virtually "recession-proof," apart from the growth-decline in 1969. Since attaining 15 percent of the market in 1971, however, foreign sales have tended to track the common cycle more closely, the notable exception being their 1976 decline. Thus, from 1963 to 1975, foreign sales outgrew domestics in every year, with 1972 the exception. For instance, in 1966-67, domestic new registrations fell 3 percent and 7 percent respectively, while imports rose 17 percent and 19 percent.

The 1967 national recession was, in fact, largely led by the auto industry, exacerbated by a moderately severe strike and a decline in inventory investment. It was then that a broader range and variety of imports began to appear, with the entry of Datsun (1965) and Toyota (1966) into the US market. The Japanese firms quickly established themselves--Datsun's sales, for instance, rose 70 percent in their second year.

The 1968 election year boom was extremely short-lived with 1970 experiencing the worst decline for the domestic industry since 1958. The 1971-73 period then saw a resumption of the mid-1960s growth rates. Both foreign and domestic sales registered a record year in 1973. Then the embargo, the late-1974 recession, and rapid inflation led to a huge 24 percent drop in domestic sales accompanied by a 20 percent fall for imports.

FIGURE 1-4. IMPORT MARKET SHARE

Domestic sales then fell a further 8 percent in 1975 (to below their 1963 level), while imports gained ground, recovering at almost a 10 percent rate. However, 1976 saw this pattern reversed, with domestics gaining almost 25 percent and imports dropping by almost 5 percent. This counter-cyclical imports behavior is significant; contrary to ad-hoc generalizations concerning the impacts of the embargo, the 1974-75 developments can be traced to prices and costs (as documented in Section 4). The price increase effects totally dominated the impact of gasoline costs--although both tended to operate in the same direction. Domestic prices showed enormous increases in 1975, especially the small cars. In 1976 this was reversed, domestic prices showing moderate increases, while foreign prices rose sharply.

1.2 NEW REGISTRATIONS BY SIZE CLASS

An important factor in the 1974-76 pattern of domestic and foreign sales is the well-known phenomenon of "trading-up"--in a recession and/or high inflation year, buyers switch to cheaper (i.e., smaller) vehicles and vice-versa. These cyclical impacts on the size class distribution can be seen in Figure 1-5. Here we show market shares by class, with all small cars combined. Figures 1-6, 1-7, and 1-8 show sales for the foreign classes and their domestic counterparts, as shares of total new registrations. Figures 1-9, 1-10, and 1-11 show the foreign shares of total subcompact, compact, and luxury, respectively.

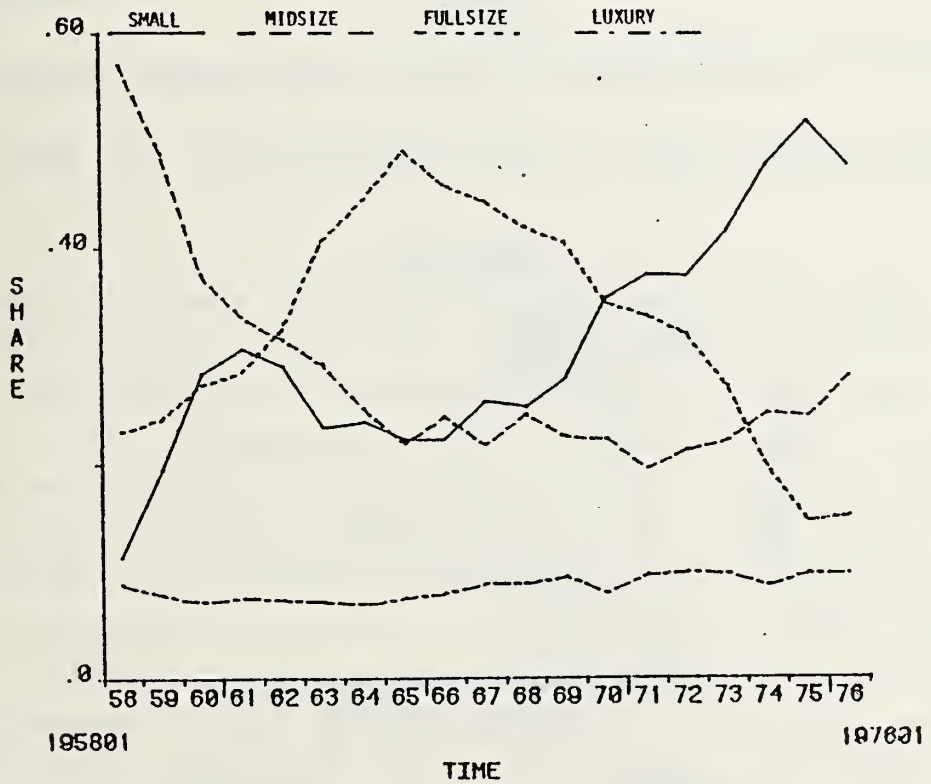

FIGURE 1-5. NEW REGISTRATIONS, SHARE BY SIZE CLASS

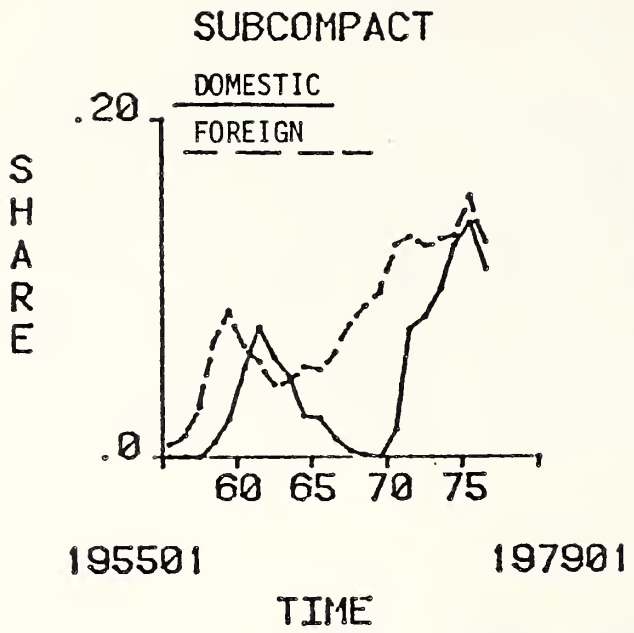

FIGURE 1-6. NEW REGISTRATIONS, DOMESTIC VERSUS FOREIGN SUBCOMPACTS

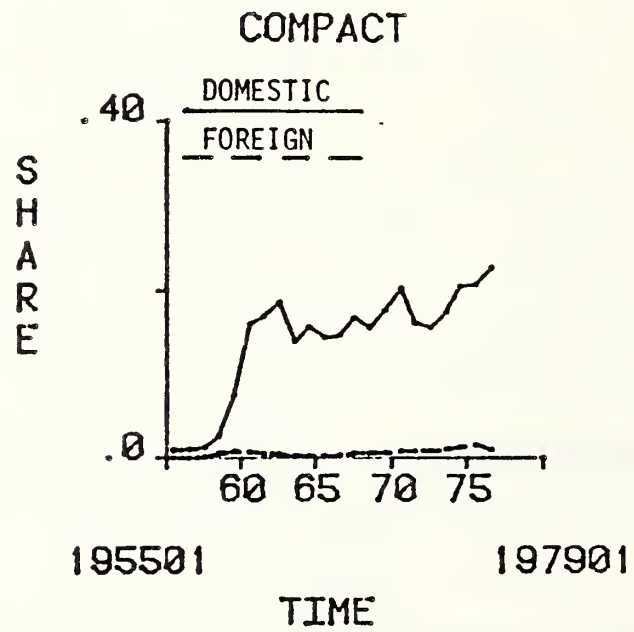

FIGURE 1-7. NEW REGISTRATIONS, DOMESTIC VERSUS FOREIGN COMPACTS

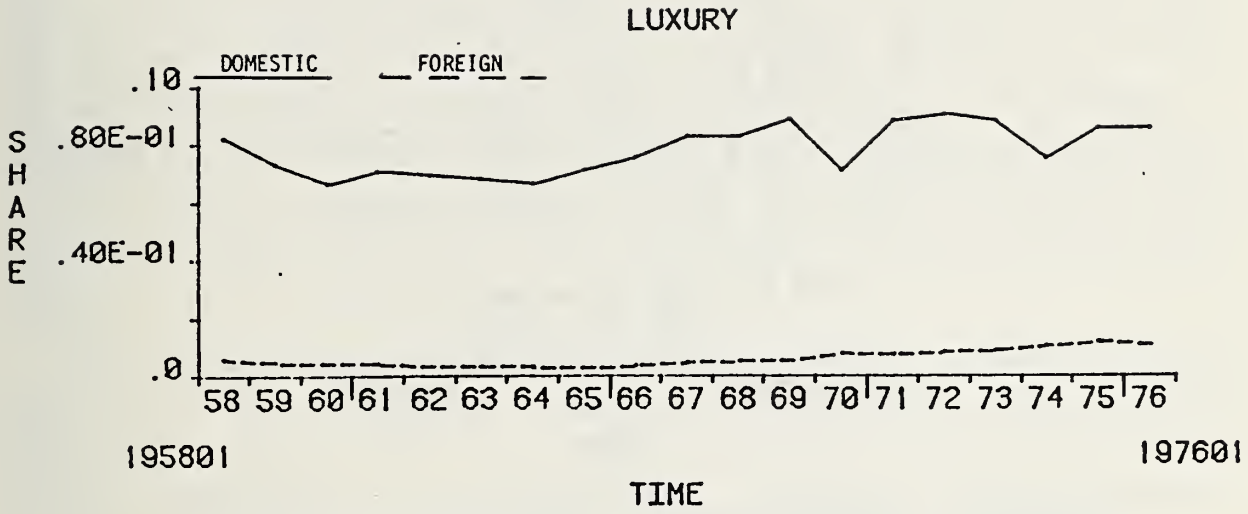

FIGURE 1-8. NEW REGISTRATIONS, DOMESTIC VERSUS FOREIGN LUXURY

The small car share rose rapidly from 1958-61, primarily due to foreign subcompact and domestic compact sales, the latter peaking at almost 20 percent by 1962. After falling into a slump from 1963-66, small cars outperformed the rest of the market throughout the 1970s. Cyclical increases can be observed in the recessions of 1961, 1967, 1970-71, and most prominently, 1974-75. The opposite effect--declines or slower increases--can be seen for the good sales years, 1962-65, 1972, and 1976. It thus appears that the embargo did affect the size distribution of sales in 1973--which was a record sales year--particularly favoring domestic small cars. The growth of domestic subcompact new registrations from 1970 to 1973 was remarkable. From a 1969 level of just over 4 thousand, they rose to 1.13 million in 1973. This renewed domestic competition is seen most dramatically in Figure 1-9, the foreign share of subcompacts, which goes from 90 percent in 1958 to 40 percent in 1962, and from virtually 100 percent in 1969 to 50 percent in the mid-1970s.

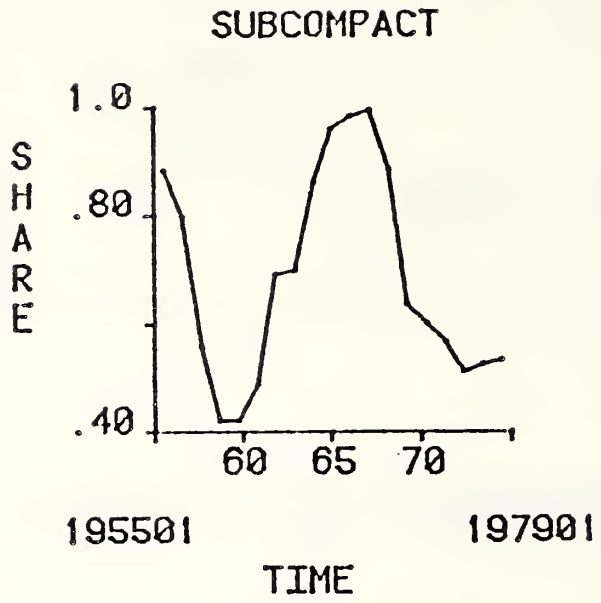

FIGURE 1-9. NEW REGISTRATIONS, FOREIGN SHARE, SUBCOMPACTS

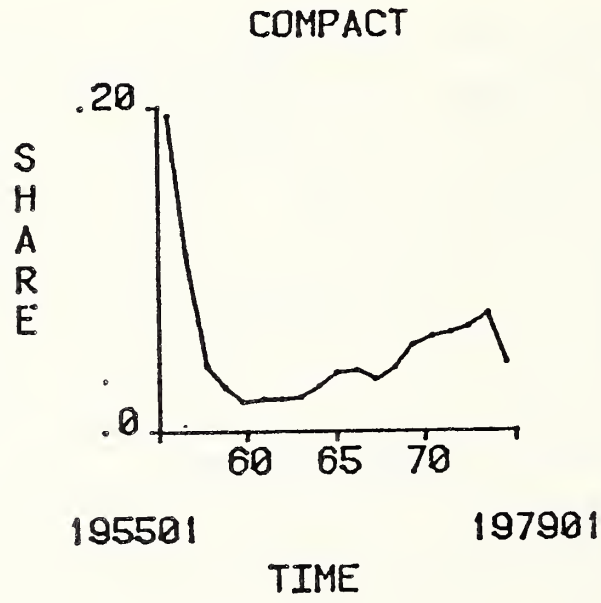

FIGURE 1-10. NEW REGISTRATIONS, FOREIGN SHARE, COMPACTS

In terms of the other classes, we see that fullsize and midsize exchanged positions during the period of rapid growth from 1958 to 1965. In fact the switchover was even more abrupt than indicated here. The midsize definition was adjusted to more gradually phase in the new models from Chevrolet, Ford, and Chrysler. Note that over this period the sizes of vehicles within the mid and fullsize classes generally declined (see Section 3). The strongest influence here was undoubtedly the relative affluence of this period, in terms of the increase in personal disposable income. Comfort, in terms of vehicle size and increased options, and "style" were major selling points during this period of stable or declining new car prices.

The midsize share then fluctuates around 23 percent, dipping in 1971. From 1971 to 1976, a steadily increasing trend is observed. After the mid-1960s the strongest trend is the continuing decline of the fullsize share, which is absorbed by the small car increase. It should be stressed that the decline of the fullsize domestic vehicle was underway well before the oil embargo, at the same time that curb weights--and prices--began to accelerate. The luxury share has moved very slowly towards 10 percent from its 7 percent level of 1963-64, with foreign luxury models increasing their share of total foreign and total luxury sales, the latter as shown in Figure 1-11.

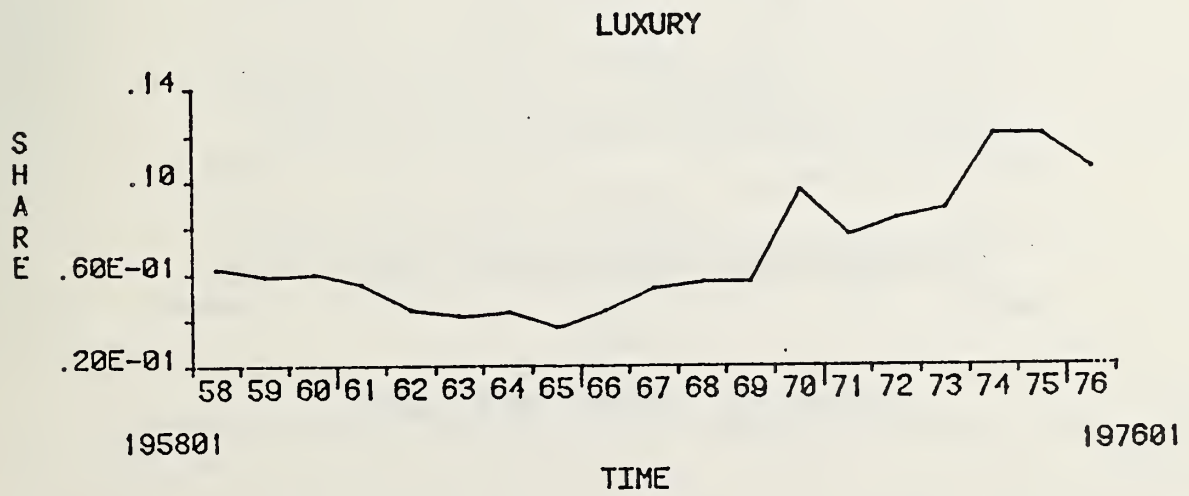

FIGURE 1-11. NEW REGISTRATIONS, FOREIGN SHARE, LUXURY

1.3 NEW REGISTRATIONS BY DOMESTIC MANUFACTURER

The relative standings of the four major domestic producers have remained unchanged over the last 19 years, GM dominating throughout with around 50 percent of the market, while Ford has generally maintained a 25-30 percent share. The relatively modest variations over time are shown in Figure 1-12. Chrysler's share grew significantly from its 1962 trough, almost reaching 20 percent before declining during the 1970s. American Motors' share declined from its peak in the early 1960s, recovering only briefly in 1973-75. Sharp fluctuations that can be observed are GM's increase in market share in 1961-62, Ford's 1967 and 1976 declines, and GM's 1970 and 1974 declines. Many of these abrupt changes in market shares have been associated with the severity of an autoworkers strike.

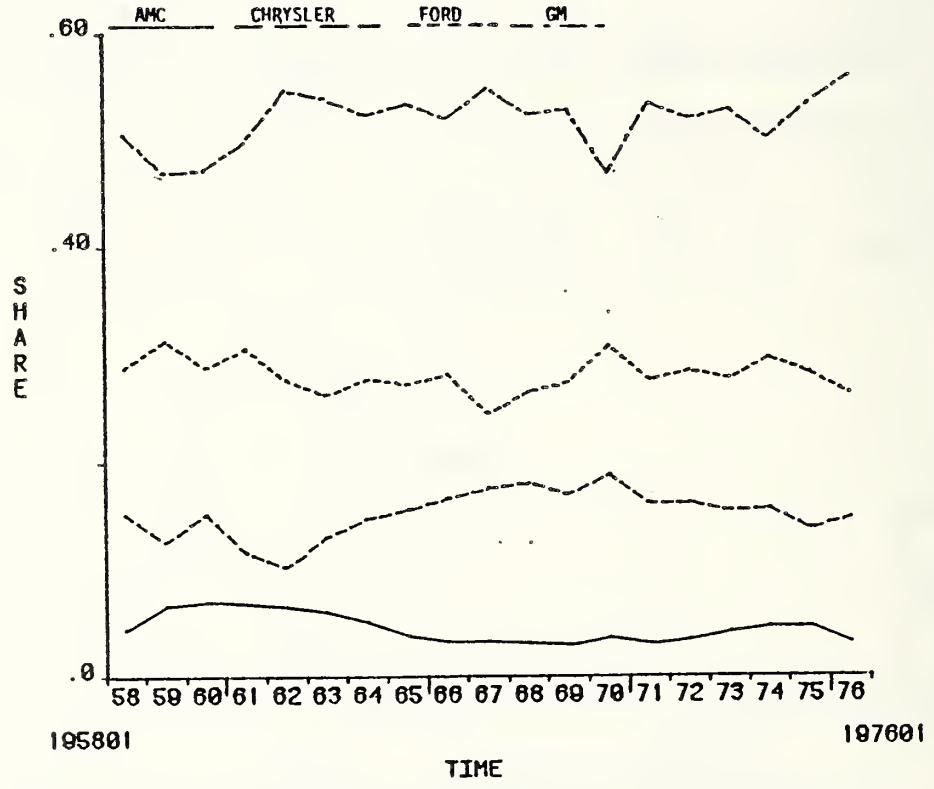

FIGURE 1-12. COMPANY MARKET SHARE

In Figure 1-13, subcompact sales shares by company are shown. Notice that Chrysler did not produce a subcompact during this period. In 1958 American Motors was the only domestic producer, with less than 12 percent of the

market. Then in 1959, General Motors' Corvair entered the market, and rapidly gained a dominant share. In 1964 the Rambler American was upgraded into a compact, and--beset by concerns about its safety--Corvair sales then began to decline as rapidly as they had originally grown. By 1969 domestic competition in the subcompact market had ceased to exist. In 1970, Ford, GM, and AMC all reentered the market, with the Pinto, Vega, and Gremlin, respectively. Ford was the most successful, attaining a 29 percent share in 1974. GM eventually overtook Ford in 1976, reaching its peak of 22 percent. AMC also showed steady, if unspectacular, growth.

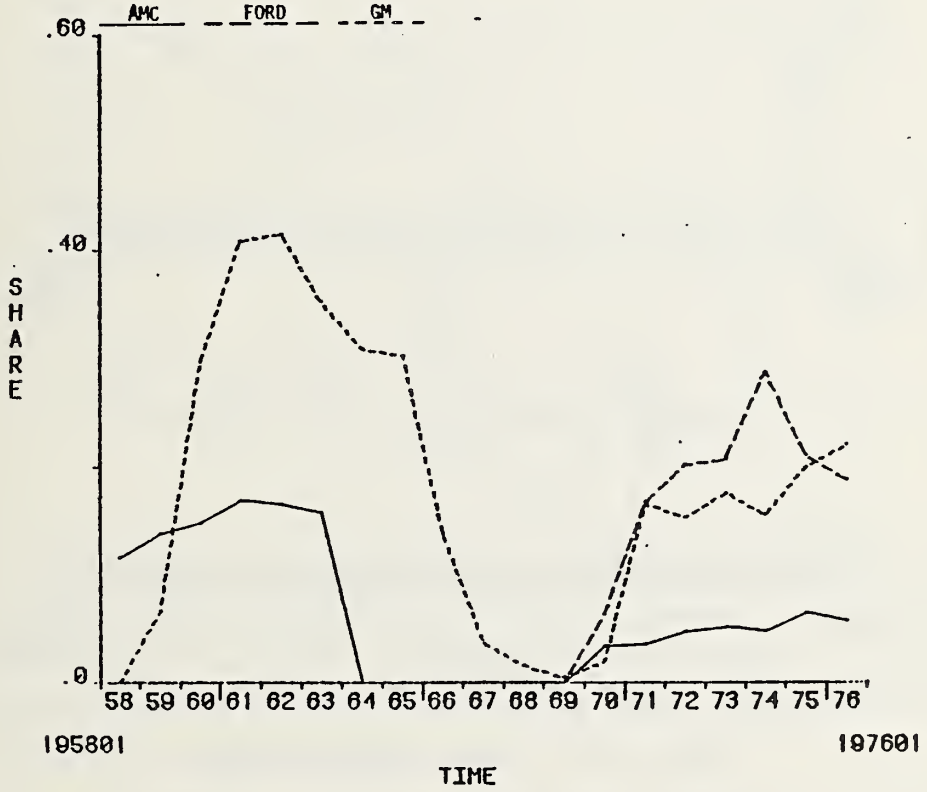

FIGURE 1-13. SUBCOMPACT MARKET SHARE

The compact market shows many more fluctuations (Figure 1-14). First, until 1973, GM did not dominate the market. AMC dominated prior to 1960, but its share declined precipitously as Ford became the leader--a position maintained through the decade due to the success of the Falcon and Mustang. Lacking a subcompact, it was perhaps natural for Ford and also Chrysler to

focus on the compact market. Chrysler did extremely well in 1963 (around 30 percent) but then its share declined until revived in the 1970s by the Dart and Valiant, when it briefly attained market dominance. The market for compact cars has been, and remains, extremely competitive. It should be remembered that foreign competition has been relatively minor and of a specialized nature.

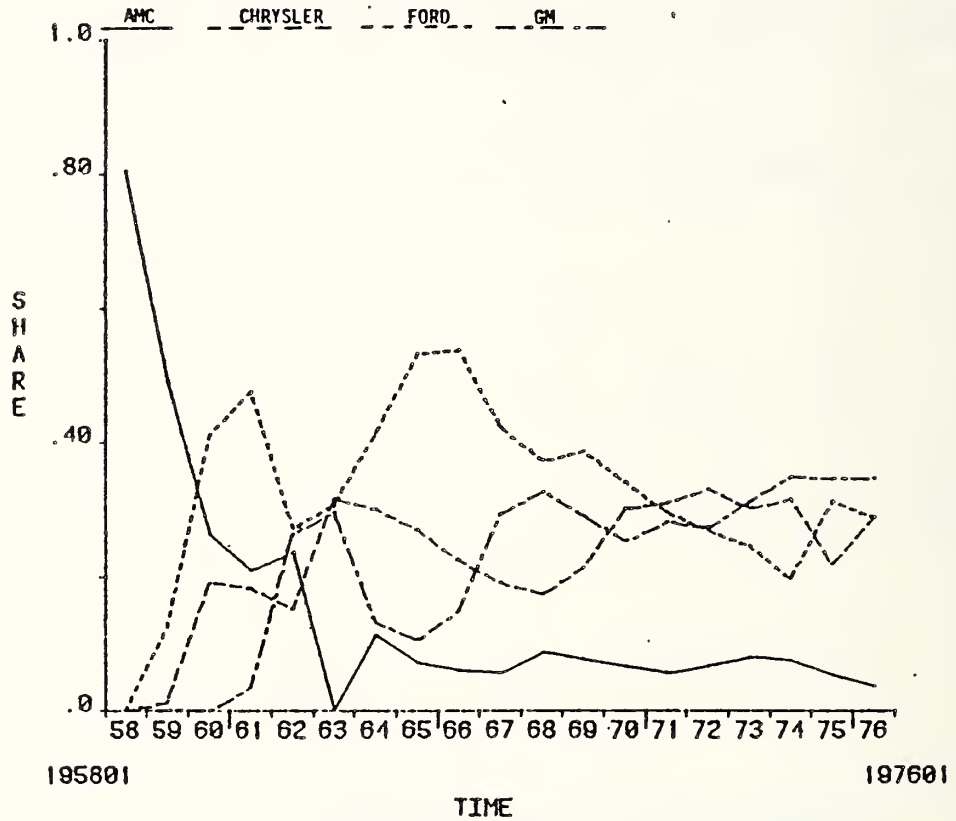

FIGURE 1-14. COMPACT MARKET SHARE

Figure 1-15 illustrates midsize sales by manufacturer, a market increasingly dominated by GM over the historical period. Most of the upward trend in GM's share was at the expense of Ford, and later on, both Chrysler and AMC. Chrysler seriously challenged Ford for second place in 1965, and briefly attained that position in 1967 and 1975. AMC did briefly attain a respectable share in the mid-1960s, but could not maintain more than a minor share thereafter.

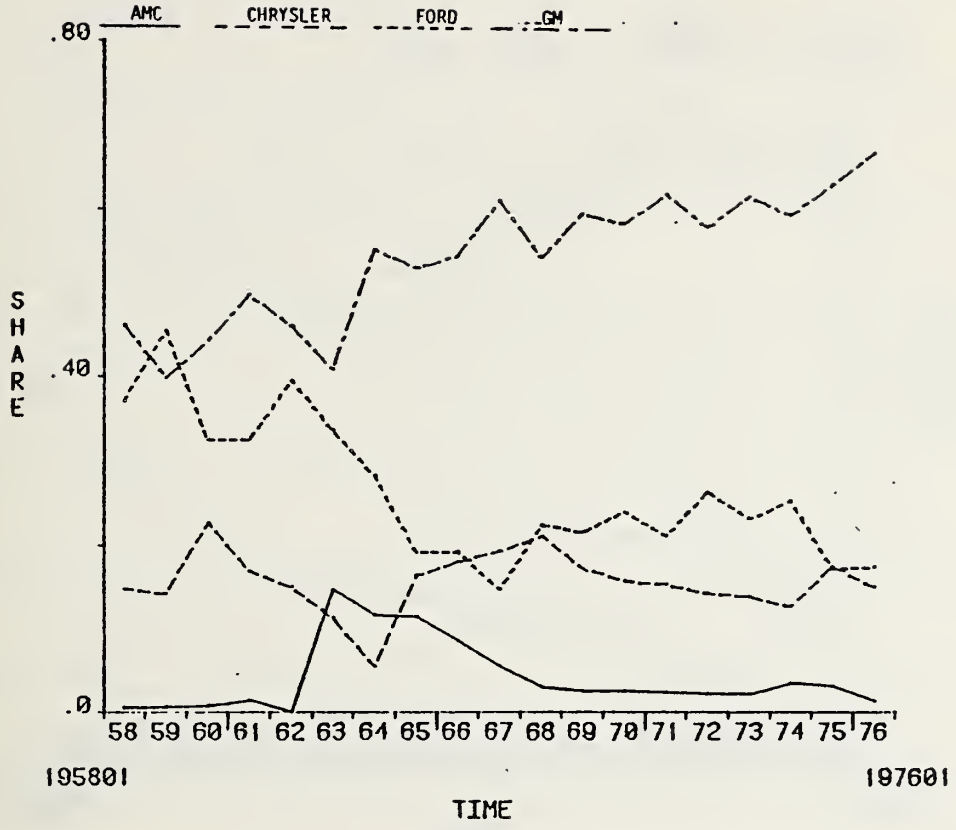

FIGURE 1-15. MIDSIZE MARKET SHARE

GM has also continuously dominated the fullsize market, as shown in Figure 1-16. The overall trend in GM's share is, however, downward, from the 1958-62 period when it possessed 70-75 percent of the market. Both Ford and Chrysler gained from the GM decline during the 1960s; however only Ford has managed to maintain its upward trend.

Chrysler was severely affected in 1976 by its inability to redesign its fullsize vehicles, and sharply lost share to GM and Ford, falling to a post-1962 low of 7 percent. AMC briefly entered the fullsize market between 1967 and 1974, but never attained even a 2 percent share, being financially unable to compete seriously. The impact of the 1970 GM strike is particularly noticeable in the fullsize market.

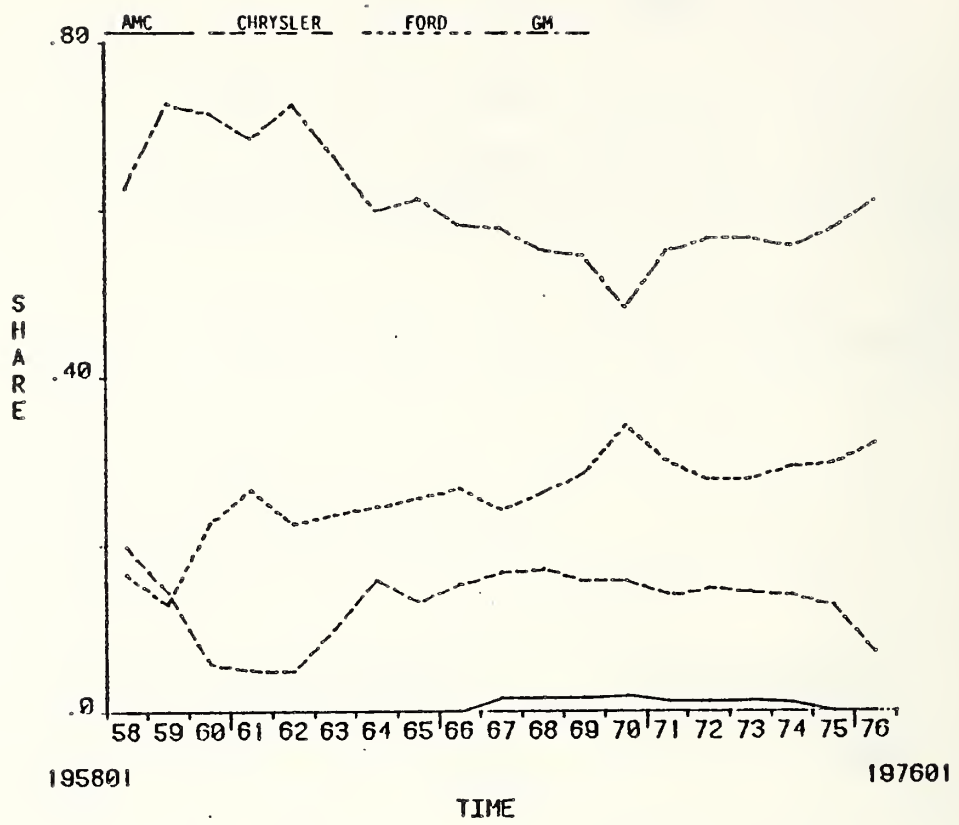

FIGURE 1-16. FULLSIZE MARKET SHARE

The final segment to be discussed is the luxury class, shown in Figure 1-17. Just as for the total luxury share, fluctuations by company are relatively modest. Again, GM is dominant, with 65-70 percent of the market throughout. Ford shows a downward trend during the 1960s, but recovers somewhat during the 1970s. Chrysler, on the other hand, has slowly declined since 1967, dropping to only 5 percent.

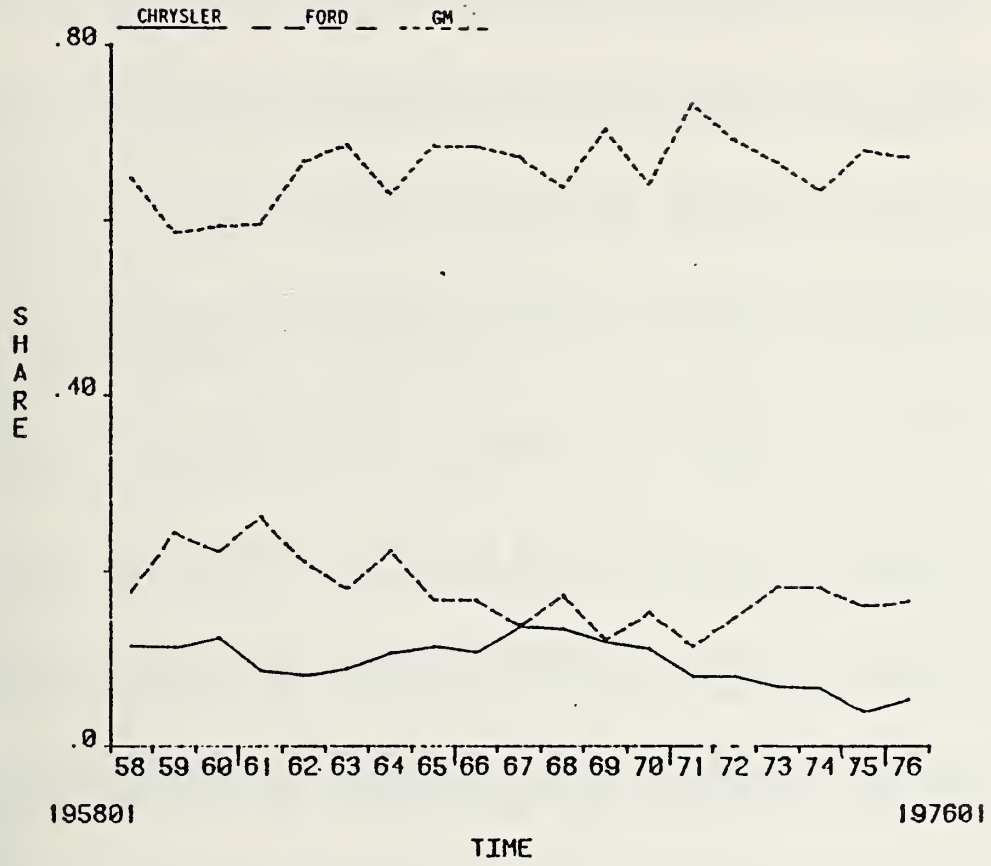

FIGURE 1-17. LUXURY MARKET SHARE

TABLE 1-1. NEW REGISTRATIONS (MILLIONS OF AUTOMOBILES)

LINE	ITEM		1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
1	TOTAL NEW REGISTRATIONS		5.98	4.65	6.04	6.58	5.85	6.94	7.56	8.07	9.28	8.96
2												
3	SUBCOMPACT		0.18	0.36	0.67	0.77	0.77	0.70	0.70	0.63	0.69	0.64
4		%SHARE	3.0	7.8	11.0	11.7	13.2	10.1	9.2	7.8	7.4	7.2
5	COMPACT		0.11	0.16	0.51	1.10	1.01	1.31	1.06	1.20	1.35	1.34
6		%SHARE	1.8	3.5	8.4	16.7	17.3	18.8	14.0	14.9	14.6	15.0
7	MID-SIZE		3.57	2.65	2.95	2.45	1.96	2.18	2.20	2.02	2.01	2.17
8		%SHARE	59.6	57.0	48.8	37.3	33.5	31.4	29.2	25.0	21.7	24.2
9	FULL SIZE		1.64	1.07	1.46	1.79	1.67	2.25	3.07	3.58	4.54	4.10
10		%SHARE	27.4	22.9	24.1	27.3	28.5	32.4	40.6	44.3	48.9	45.7
11	LUXURY		0.50	0.41	0.47	0.46	0.44	0.50	0.53	0.56	0.69	0.70
12		%SHARE	8.3	8.8	7.7	7.0	7.5	7.3	7.0	6.9	7.4	7.9
13												
14												
15	TOTAL DOMESTIC NEW REGISTRATIONS		5.78	4.27	5.43	6.08	5.48	6.60	7.17	7.58	8.78	8.34
16												
17	SUBCOMPACTS		0.0	0.04	0.14	0.34	0.45	0.40	0.35	0.19	0.21	0.09
18		%SHARE	0.0	1.0	2.5	5.7	8.2	6.1	4.9	2.6	2.4	1.1
19	COMPACT		0.09	0.13	0.45	1.05	0.99	1.28	1.03	1.26	1.32	1.30
20		%SHARE	1.5	3.0	8.3	17.3	18.0	19.4	14.4	16.6	15.1	15.6
21	MID-SIZE		3.57	2.65	2.95	2.45	1.96	2.18	2.20	2.02	2.01	2.17
22		%SHARE	61.7	62.1	54.2	40.3	35.8	33.0	30.7	26.6	23.0	26.0
23	FULL SIZE		1.64	1.07	1.46	1.79	1.67	2.25	3.07	3.58	4.54	4.10
24		%SHARE	28.3	25.0	26.8	29.5	30.4	34.1	42.8	47.2	51.9	49.2
25	LUXURY		0.48	0.38	0.44	0.44	0.41	0.48	0.51	0.53	0.66	0.67
26		%SHARE	8.4	8.9	8.1	7.2	7.6	7.3	7.1	7.0	7.6	8.1
27												
28												
29	TOTAL FOREIGN NEW REGISTRATIONS		0.21	0.38	0.61	0.50	0.38	0.34	0.39	0.48	0.54	0.63
30												
31	SUBCOMPACT		0.18	0.32	0.53	0.43	0.33	0.29	0.34	0.43	0.48	0.56
32		%SHARE	85.3	85.0	86.4	85.7	86.2	84.4	88.9	89.5	89.8	88.9
33	COMPACT		0.02	0.03	0.06	0.04	0.03	0.02	0.02	0.03	0.03	0.04
34		%SHARE	8.1	8.3	9.1	8.7	7.4	7.0	5.8	5.5	5.5	6.1
35	LUXURY		0.01	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.03	0.03
36		%SHARE	6.5	6.7	4.5	5.6	6.4	6.6	5.7	5.0	4.7	5.0
37												
38	FOREIGN MARKET SHARES:	% OF TOTAL	3.5	8.1	10.1	7.6	6.5	4.9	5.1	6.0	5.8	7.0
39		% OF SUBCOMPACT	100.0	88.4	79.4	55.8	42.2	42.0	49.1	69.1	69.7	86.2
40		% OF COMPACT	15.9	19.6	10.9	4.0	2.8	1.8	2.1	2.1	2.2	2.9
41		% OF LUXURY	2.7	6.2	5.9	6.0	5.5	4.4	4.1	4.3	3.7	4.4

TABLE 1-1. NEW REGISTRATIONS (MILLIONS OF AUTOMOBILES)
(Continued)

LINE	ITEM		1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
1	TOTAL NEW REGISTRATIONS		8.31	9.35	9.46	8.35	9.84	10.49	11.35	8.67	8.23	9.711
2												
3	SUBCOMPACT		0.68	0.85	0.92	1.19	2.02	2.18	2.60	2.23	2.41	2.311
4		%SHARE	8.2	9.1	9.7	14.2	20.5	20.8	22.9	25.8	29.2	23.81
5	COMPACT		1.44	1.50	1.72	1.75	1.66	1.72	2.11	1.88	1.83	2.291
6		%SHARE	17.4	16.0	18.1	21.0	16.9	16.4	18.6	21.7	22.2	23.61
7	MID-SIZE		1.79	2.28	2.11	1.85	1.92	2.21	2.50	2.13	2.00	2.711
8		%SHARE	21.6	24.4	22.3	22.2	19.5	21.1	22.0	24.6	24.2	28.01
9	FULL SIZE		3.67	3.90	3.82	2.90	3.30	3.34	3.05	1.69	1.19	1.471
10		%SHARE	44.2	41.7	40.4	34.7	33.6	31.8	26.9	19.5	14.5	15.11
11	LUXURY		0.72	0.82	0.89	0.65	0.94	1.03	1.09	0.78	0.80	0.931
12		%SHARE	8.7	8.8	9.4	7.8	9.5	9.9	9.6	8.5	9.7	9.61
13												
14												
15	TOTAL DOMESTIC NEW REGISTRATIONS		7.56	8.41	8.44	7.16	8.40	8.99	9.65	7.32	6.73	8.281
16												
17	SUBCOMPACTS		0.02	0.01	0.00	0.14	0.74	0.87	1.13	1.09	1.14	1.071
18		%SHARE	0.3	0.2	0.1	1.9	8.8	9.7	11.7	14.9	16.9	13.01
19	COMPACT		1.39	1.44	1.66	1.68	1.57	1.62	1.98	1.76	1.70	2.191
20		%SHARE	18.4	17.1	19.7	23.5	18.7	18.0	20.5	24.0	25.2	26.51
21	MID-SIZE		1.79	2.28	2.11	1.85	1.92	2.21	2.50	2.13	2.00	2.711
22		%SHARE	23.7	27.1	25.0	25.8	22.8	24.6	25.9	29.1	29.6	32.81
23	FULL SIZE		3.67	3.90	3.82	2.90	3.30	3.34	3.05	1.69	1.19	1.471
24		%SHARE	48.5	46.4	45.3	40.5	39.3	37.1	31.6	23.1	17.7	17.71
25	LUXURY		0.68	0.77	0.84	0.59	0.87	0.95	0.99	0.65	0.71	0.831
26		%SHARE	9.1	9.2	9.9	8.2	10.3	10.5	10.3	8.9	10.5	10.11
27												
28												
29	TOTAL FOREIGN NEW REGISTRATIONS		0.75	0.94	1.02	1.18	1.44	1.50	1.70	1.35	1.50	1.431
30												
31	SUBCOMPACT		0.66	0.84	0.92	1.05	1.28	1.31	1.47	1.14	1.27	1.241
32		%SHARE	87.7	89.0	89.8	88.7	88.8	87.4	86.6	84.4	84.7	86.61
33	COMPACT		0.05	0.06	0.05	0.07	0.09	0.10	0.13	0.12	0.13	0.101
34		%SHARE	7.1	6.0	5.3	6.0	6.2	6.8	7.7	9.1	8.9	6.71
35	LUXURY		0.04	0.05	0.05	0.06	0.07	0.09	0.10	0.09	0.10	0.101
36		%SHARE	5.2	4.9	4.9	5.3	5.0	5.8	5.7	6.5	6.4	6.81
37												
38	FOREIGN MARKET SHARES:	% OF TOTAL	9.0	10.1	10.8	14.2	14.7	14.3	14.9	15.6	18.2	14.71
39		% OF SUBCOMPACT	96.3	98.5	99.5	88.3	63.4	60.0	56.5	51.1	52.6	53.51
40		% OF COMPACT	3.7	3.8	3.2	4.0	5.4	6.0	6.2	6.6	7.3	4.21
41		% OF LUXURY	5.4	5.7	5.7	9.6	7.6	8.4	8.8	12.0	11.9	10.51

2. VEHICLES IN OPERATION AND VEHICLE MILES TRAVELLED

2.1 VEHICLES IN OPERATION

Estimates of vehicles in operation are presented and discussed in two forms: year-end data by class of car (Table 2-1) and midyear estimates by vintage (Table 2-2). Constructing consistent estimates of such data over time is a difficult exercise and inevitably assumptions and approximations are required. Our data are similar to, and in some ways derived from, the R.L. Polk data, but there are significant differences.[1/2/]

Since fluctuations in new registrations and scrappage usually coincide, changes in vehicle stocks growth only partially tend to reflect good and bad sales years, and growth rates are also stabilized and strongly affected by the impacts of previous fluctuations. Thus, 1976 registered the historical low rate, 2.3 percent, despite the sales recovery in that year, due to the scrappage rebound and the low 1974-75 sales.

A general declining trend in growth of stock is apparent, dominated by the 1974-76 results. The strongest growth occurred between 1958 and 1965, when annual growth never fell below 3.2 percent, and the average compound growth rate exceeded 3.8 percent per annum. Stock growth fell sharply in 1966-67, and was then again affected by weakening economic conditions in 1970. Hence, while the average annual growth rate fell below 3.5 percent only twice from 1958 to 1965, from 1966 to 1976 it has exceeded 3.8 percent in only two years. The overall average rate of growth from 1958 to 1976 is 3.4 percent, a rate equalled or surpassed only four times in the past eleven years. This slowdown is more marked if we look at the ratio of cars operated to licensed drivers. With an automobile stock (excluding all light trucks and vans) of 97.8 million by the end of 1976, the ratio stood at 0.73, a decline from the 1973 high of over 0.74, and the same ratio achieved in 1969-70. This contrasts with the growth from 1958's 0.66 ratio.

1/ See Schink and Loxley, op. cit., and 2/ Loxley et al., op. cit.

TABLE 2-1. CARS IN OPERATION BY CLASS, YEAR-END (MILLIONS OF AUTOMOBILES)

LINE	ITEM		1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
1	TOTAL CARS IN OPERATION YEAR-END		52.0	53.8	56.1	58.0	59.9	62.2	64.8	67.5	70.1	72.0
2												
3	SUBCOMPACT		0.70	1.03	1.66	2.37	3.08	3.69	4.28	4.77	5.25	5.61
4		%SHARE	1.3	1.9	3.0	4.1	5.1	5.9	6.6	7.1	7.5	7.8
5	COMPACT		0.51	0.65	1.13	2.19	3.16	4.40	5.37	6.53	7.67	8.71
6		%SHARE	1.0	1.2	2.0	3.8	5.3	7.1	8.3	9.7	10.9	12.1
7	MID-SIZE		29.81	30.94	31.83	31.67	31.40	30.97	30.36	29.36	27.68	26.12
8		%SHARE	57.4	57.5	56.7	54.6	52.5	49.8	46.9	43.5	39.5	36.3
9	FULL SIZE		17.07	17.06	17.13	17.24	17.54	18.26	19.76	21.68	24.18	26.16
10		%SHARE	32.9	31.7	30.5	29.7	29.3	29.4	30.5	32.1	34.5	36.3
11	LUXURY		3.86	4.10	4.34	4.51	4.68	4.86	5.01	5.15	5.29	5.44
12		%SHARE	7.4	7.6	7.7	7.8	7.8	7.8	7.7	7.6	7.6	7.6
13												
14												
15	DOMESTIC CARS IN OPERATION		51.45	52.92	54.63	56.05	57.58	59.61	61.90	64.23	66.43	68.00
16												
17	SUBCOMPACTS		0.27	0.29	0.40	0.71	1.13	1.49	1.80	1.94	2.08	2.08
18		%SHARE	0.5	0.6	0.7	1.3	2.0	2.5	2.9	3.0	3.1	3.1
19	COMPACTS		0.49	0.60	1.02	2.04	2.98	4.20	5.15	6.29	7.41	8.43
20		%SHARE	0.9	1.1	1.9	3.6	5.2	7.0	8.3	9.8	11.2	12.4
21	MID-SIZE		29.81	30.94	31.83	31.67	31.40	30.97	30.36	29.36	27.68	26.12
22		%SHARE	57.9	58.5	58.3	56.5	54.5	51.9	49.0	45.7	41.7	38.4
23	FULL SIZE		17.07	17.06	17.13	17.24	17.54	18.26	19.76	21.68	24.18	26.16
24		%SHARE	33.2	32.2	31.4	30.8	30.5	30.6	31.9	33.8	36.4	38.5
25	LUXURY		3.81	4.03	4.24	4.38	4.54	4.70	4.84	4.95	5.09	5.22
26		%SHARE	7.4	7.6	7.8	7.8	7.9	7.9	7.8	7.7	7.7	7.7
27												
28												
29	FOREIGN CARS IN OPERATION		0.51	0.87	1.46	1.93	2.27	2.56	2.87	3.26	3.63	4.04
30												
31	SUBCOMPACTS		0.43	0.74	1.25	1.65	1.95	2.20	2.48	2.83	3.17	3.53
32		%SHARE	85.3	85.2	85.7	85.7	85.8	85.8	86.2	86.7	87.2	87.5
33	COMPACTS		0.02	0.06	0.11	0.15	0.18	0.20	0.22	0.24	0.26	0.28
34		%SHARE	4.9	6.4	7.6	7.9	7.9	7.8	7.6	7.3	7.1	6.9
35	LUXURY		0.05	0.07	0.10	0.12	0.14	0.16	0.18	0.19	0.21	0.22
36		%SHARE	9.8	8.4	6.8	6.4	6.4	6.3	6.2	6.0	5.7	5.6
37												
38	FOREIGN SHARES:	% OF TOTAL	1.0	1.6	2.6	3.3	3.8	4.1	4.4	4.8	5.2	5.6
39		% OF SUBCOMPACT	61.7	71.8	75.7	69.9	63.4	59.6	57.9	59.3	60.4	63.0
40		% OF COMPACT	4.9	8.6	9.8	7.0	5.7	4.5	4.1	3.6	3.3	3.2
41		% OF LUXURY	1.3	1.8	2.3	2.7	3.1	3.3	3.6	3.8	3.9	4.1

TABLE 2-1. CARS IN OPERATION BY CLASS, YEAR-END (MILLIONS OF AUTOMOBILES)
(continued)

LINE	ITEM		1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
1	TOTAL CARS IN OPERATION YEAR-END		74.0	76.7	79.2	81.4	84.3	87.5	90.5	93.1	95.6	97.8
2												
3	SUBCOMPACT		5.97	6.40	6.80	7.48	8.90	10.43	12.27	13.94	15.80	17.35
4		%SHARE	8.1	8.3	8.6	9.2	10.6	11.9	13.6	15.0	16.5	17.7
5	COMPACT		9.79	10.79	11.83	12.89	13.64	14.34	15.22	16.17	17.12	18.21
6		%SHARE	13.2	14.1	14.9	15.8	16.2	16.4	16.8	17.4	17.9	18.6
7	MID-SIZE		24.70	23.80	22.84	22.25	21.64	21.45	21.40	21.82	22.28	23.08
8		%SHARE	33.4	31.0	28.8	27.3	25.7	24.5	23.7	23.4	23.3	23.6
9	FULL SIZE		27.92	29.79	31.43	32.32	33.22	33.92	33.77	33.06	31.94	30.38
10		%SHARE	37.7	38.8	39.7	39.7	39.4	38.8	37.3	35.5	33.4	31.1
11	LUXURY		5.66	5.96	6.31	6.50	6.91	7.39	7.84	8.10	8.44	8.77
12		%SHARE	7.7	7.8	8.0	8.0	8.2	8.4	8.7	8.7	8.8	9.0
13												
14												
15	DOMESTIC CARS IN OPERATION		69.50	71.59	73.42	74.83	76.69	78.87	80.71	82.40	83.84	85.25
16												
17	SUBCOMPACTS		2.00	1.86	1.68	1.63	2.14	2.77	3.64	4.56	5.54	6.42
18		%SHARE	2.9	2.6	2.3	2.2	2.8	3.5	4.5	5.5	6.6	7.5
19	COMPACTS		9.48	10.44	11.47	12.47	13.17	13.80	14.58	15.44	16.28	17.32
20		%SHARE	13.6	14.6	15.6	16.7	17.2	17.5	18.1	18.7	19.4	20.3
21	MID-SIZE		24.70	23.80	22.84	22.25	21.64	21.45	21.40	21.82	22.28	23.08
22		%SHARE	35.5	33.2	31.1	29.7	28.2	27.2	26.5	26.5	26.6	27.1
23	FULL SIZE		27.92	29.79	31.43	32.32	33.22	33.92	33.77	33.06	31.94	30.38
24		%SHARE	40.2	41.6	42.8	43.2	43.3	43.0	41.8	40.1	38.1	35.6
25	LUXURY		5.42	5.69	6.01	6.15	6.52	6.94	7.32	7.51	7.79	8.04
26		%SHARE	7.8	7.9	8.2	8.2	8.5	8.8	9.1	9.1	9.3	9.4
27												
28												
29	FOREIGN CARS IN OPERATION		4.53	5.16	5.79	6.61	7.62	8.66	9.79	10.70	11.75	12.55
30												
31	SUBCOMPACTS		3.98	4.54	5.12	5.85	6.76	7.66	8.63	9.39	10.26	10.93
32		%SHARE	87.7	88.0	88.4	88.5	88.7	88.5	88.2	87.7	87.3	87.1
33	COMPACTS		0.31	0.34	0.37	0.41	0.47	0.54	0.64	0.73	0.84	0.89
34		%SHARE	6.9	6.7	6.4	6.2	6.2	6.3	6.5	6.8	7.1	7.1
35	LUXURY		0.25	0.27	0.30	0.35	0.39	0.45	0.52	0.59	0.66	0.72
36		%SHARE	5.5	5.3	5.2	5.2	5.2	5.2	5.3	5.5	5.6	5.8
37												
38	FOREIGN SHARE:	% OF TOTAL	6.1	6.7	7.3	8.1	9.0	9.9	10.8	11.5	12.3	12.8
39		% OF SUBCOMPACT	66.6	70.9	75.3	78.2	75.9	73.4	70.3	67.3	64.9	63.0
40		% OF COMPACT	3.2	3.2	3.1	3.2	3.5	3.8	4.2	4.5	4.9	4.9
41		% OF LUXURY	4.4	4.6	4.8	5.3	5.7	6.1	6.6	7.2	7.8	8.2

TABLE 2-2. CARS IN OPERATION BY VINTAGE, MID-YEAR (MILLIONS OF AUTOMOBILES)

LINE	ITEM	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
1	CARS IN OPERATION, ALL VINTAGES	51.1	52.7	54.9	56.9	58.8	60.9	63.5	66.1	68.8	71.0
2											
3	BY AGE, MID YEAR (MILL AUTOS)										
4											
5	LESS THAN 1 YEAR OLD	2.98	2.32	3.02	3.28	2.92	3.46	3.77	4.03	4.63	4.47
6	AGE 1 YEAR OLD	5.92	5.96	4.63	6.02	6.55	5.83	6.91	7.53	8.03	9.23
7	AGE 2 YEARS OLD	7.07	5.88	5.92	4.60	5.97	6.51	5.79	6.86	7.46	7.95
8	AGE 3 YEARS OLD	5.38	6.98	5.82	5.89	4.55	5.91	6.43	5.72	6.77	7.35
9	AGE 4 YEARS OLD	5.46	5.27	6.87	5.71	5.74	4.47	5.80	6.31	5.60	6.61
10	AGE 5 YEARS OLD	3.84	5.30	5.15	6.67	5.56	5.60	4.35	5.68	6.12	5.41
11	AGE 6 YEARS OLD	4.47	3.68	5.11	4.93	6.41	5.35	5.38	4.17	5.38	5.80
12	AGE 7 YEARS OLD	5.22	4.19	3.48	4.78	4.64	6.05	5.03	5.05	3.88	4.96
13	AGE 8 YEARS OLD	3.65	4.75	3.87	3.17	4.39	4.28	5.55	4.60	4.56	3.47
14	AGE 9 YEARS OLD	2.31	3.20	4.26	3.41	2.82	3.92	3.80	4.90	3.99	3.89
15	AGE 10 YEARS OLD	1.74	1.90	2.73	3.52	2.85	2.38	3.28	3.16	3.97	3.15
16	AGE 11 YEARS OLD	0.78	1.33	1.55	2.13	2.78	2.30	1.89	2.58	2.40	2.91
17	AGE 12 YEARS OLD	0.05	0.57	1.06	1.17	1.63	2.18	1.77	1.44	1.90	1.69
18	AGE 13 YEARS OLD	0.00	0.03	0.45	0.79	0.89	1.27	1.67	1.34	1.05	1.32
19	AGE 14 YEARS OLD	0.00	0.00	0.03	0.34	0.60	0.69	0.97	1.26	0.98	0.73
20	AGE 15 YEARS OLD	0.09	0.00	0.00	0.02	0.26	0.47	0.53	0.73	0.92	0.68
21	AGE 16 YEARS OLD	0.66	0.07	0.00	0.00	0.02	0.20	0.36	0.40	0.54	0.64
22	AGE 17 YEARS OLD	0.53	0.48	0.05	0.00	0.00	0.01	0.15	0.27	0.29	0.37
23	AGE 18 YEARS OLD	0.36	0.38	0.38	0.04	0.00	0.00	0.01	0.12	0.20	0.20
24	AGE 19 YEARS OLD	0.23	0.26	0.30	0.28	0.03	0.00	0.00	0.01	0.08	0.14
25	AGE 20 YEARS OLD	0.37	0.16	0.21	0.23	0.21	0.02	0.00	0.00	0.01	0.06
26											
27	SHARES BY AGE (PERCENT)										
28											
29	LESS THAN 1 YEAR OLD	5.8	4.4	5.5	5.8	5.0	5.7	5.9	6.1	6.7	6.3
30	AGE 1 YEAR OLD	11.6	11.3	8.4	10.6	11.1	9.6	10.9	11.4	11.7	13.0
31	AGE 2 YEARS OLD	13.8	11.2	10.8	8.1	10.2	10.7	9.1	10.4	10.9	11.2
32	AGE 3 YEARS OLD	10.5	13.2	10.6	10.3	7.7	9.7	10.1	8.7	9.8	10.3
33	AGE 4 YEARS OLD	10.7	10.0	12.5	10.0	9.8	7.3	9.1	9.5	8.1	9.3
34	AGE 5 YEARS OLD	7.5	10.1	9.4	11.7	9.4	9.2	6.9	8.5	8.9	7.6
35	AGE 6 YEARS OLD	8.7	7.0	9.3	8.7	10.9	8.8	8.5	6.3	7.8	8.2
36	AGE 7 YEARS OLD	10.2	7.9	6.3	8.4	7.9	9.9	7.9	7.6	5.6	7.0
37	AGE 8 YEARS OLD	7.1	9.0	7.1	5.6	7.5	7.0	8.7	7.0	6.6	4.9
38	AGE 9 YEARS OLD	4.5	6.1	7.8	6.0	4.8	6.4	6.0	7.4	5.8	5.5
39	AGE 10 YEARS OLD	3.4	3.6	5.0	6.2	4.9	3.9	5.2	4.8	5.8	4.4
40	AGE 11 YEARS OLD	1.5	2.5	2.8	3.7	4.7	3.8	3.0	1.9	3.5	4.1
41	AGE 12 YEARS OLD	0.1	1.1	1.9	2.1	2.8	3.6	2.8	2.2	2.8	2.4
42	AGE 13 YEARS OLD	0.0	0.1	0.8	1.4	1.5	2.1	2.6	2.0	1.5	1.9
43	AGE 14 YEARS OLD	0.0	0.0	0.0	0.6	1.0	1.1	1.5	1.9	1.4	1.8
44	AGE 15 YEARS OLD	0.2	0.0	0.0	0.0	0.4	0.8	0.8	1.1	1.3	1.0
45	AGE 16 YEARS OLD	1.3	0.1	0.0	0.0	0.0	0.3	0.6	0.6	0.8	0.9
46	AGE 17 YEARS OLD	1.0	0.9	0.1	0.0	0.0	0.0	0.2	0.4	0.4	0.5
47	AGE 18 YEARS OLD	0.7	0.7	0.7	0.1	0.0	0.0	0.0	0.2	0.3	0.3
48	AGE 19 YEARS OLD	0.4	0.5	0.6	0.5	0.1	0.0	0.0	0.0	0.1	0.2
49	AGE 20 YEARS OLD	0.7	0.3	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.1

TABLE 2-2. CARS IN OPERATION BY VINTAGE, MID-YEAR (MILLIONS OF AUTOMOBILES)
(continued)

LINE	ITEM	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
1	CARS IN OPERATION: ALL VINTAGES	73.0	75.3	77.9	80.3	82.8	85.9	89.0	91.8	94.3	96.61
2											
3	BY AGE,MID YEAR(MILL AUTOS)										
4											
5	LESS THAN 1 YEAR OLD	4.15	4.66	4.72	4.16	4.91	5.23	5.66	4.33	4.11	4.851
6	AGE) 1 YEAR OLD	8.92	8.27	9.30	9.42	8.30	9.79	10.43	11.30	8.64	8.201
7	AGE) 2 YEARS OLD	9.15	8.84	8.19	9.22	9.34	8.23	9.70	10.35	11.23	8.591
8	AGE) 3 YEARS OLD	7.84	9.02	8.70	8.08	9.09	9.20	8.11	9.58	10.25	11.111
9	AGE) 4 YEARS OLD	7.19	7.66	8.81	8.51	7.90	8.89	8.99	7.94	9.42	10.071
10	AGE) 5 YEARS OLD	6.39	6.95	7.40	8.52	8.24	7.64	8.58	8.71	7.75	9.191
11	AGE) 6 YEARS OLD	5.14	6.07	6.59	7.04	8.12	7.84	7.25	8.19	8.41	7.471
12	AGE) 7 YEARS OLD	5.36	4.75	5.59	6.10	6.53	7.51	7.22	6.75	7.75	7.941
13	AGE) 8 YEARS OLD	4.44	4.81	4.24	5.02	5.50	5.86	6.70	6.53	6.25	7.161
14	AGE) 9 YEARS OLD	2.97	3.81	4.10	3.65	4.34	4.73	4.99	5.83	5.86	5.591
15	AGE) 10 YEARS OLD	3.09	2.36	3.00	3.28	2.94	3.47	3.72	4.05	4.98	4.971
16	AGE) 11 YEARS OLD	2.31	2.29	1.72	2.22	2.46	2.18	2.52	2.80	3.29	4.021
17	AGE) 12 YEARS OLD	2.05	1.65	1.60	1.22	1.61	1.76	1.53	1.82	2.21	2.591
18	AGE) 13 YEARS OLD	1.17	1.44	1.14	1.12	0.88	1.14	1.22	1.09	1.43	1.731
19	AGE) 14 YEARS OLD	0.92	0.83	1.00	0.80	0.81	0.62	0.79	0.87	0.85	1.121
20	AGE) 15 YEARS OLD	0.51	0.65	0.57	0.70	0.57	0.57	0.43	0.56	0.68	0.671
21	AGE) 16 YEARS OLD	0.47	0.36	0.45	0.40	0.50	0.41	0.39	0.31	0.44	0.531
22	AGE) 17 YEARS OLD	0.45	0.33	0.25	0.31	0.29	0.35	0.28	0.28	0.24	0.351
23	AGE) 18 YEARS OLD	0.26	0.31	0.23	0.17	0.23	0.20	0.25	0.20	0.22	0.191
24	AGE) 19 YEARS OLD	0.14	0.18	0.22	0.16	0.12	0.16	0.14	0.17	0.16	0.171
25	AGE) 20 YEARS OLD	0.10	0.10	0.13	0.15	0.12	0.09	0.11	0.10	0.14	0.121
26											
27	SHARES BY AGE(PERCENT)										
28											
29	LESS THAN 1 YEAR OLD	5.7	6.2	6.1	5.2	5.9	6.1	6.4	4.7	4.4	5.01
30	AGE) 1 YEAR OLD	12.2	11.0	11.9	11.7	10.0	11.4	11.7	12.3	9.2	8.51
31	AGE) 2 YEARS OLD	12.5	11.7	10.5	11.5	11.3	9.6	10.9	11.3	11.9	8.91
32	AGE) 3 YEARS OLD	10.7	12.0	11.2	10.1	11.0	10.7	9.1	10.4	10.9	11.51
33	AGE) 4 YEARS OLD	9.8	10.2	11.3	10.6	9.5	10.3	10.1	8.7	10.0	10.41
34	AGE) 5 YEARS OLD	8.8	9.2	9.5	10.6	10.0	8.9	9.6	9.5	8.2	9.51
35	AGE) 6 YEARS OLD	7.0	8.1	8.5	8.8	9.8	9.1	8.1	8.9	8.9	7.71
36	AGE) 7 YEARS OLD	7.3	6.3	7.2	7.6	7.9	8.7	8.1	7.4	8.2	8.21
37	AGE) 8 YEARS OLD	6.1	6.4	5.4	6.3	6.6	6.8	7.5	7.1	6.6	7.41
38	AGE) 9 YEARS OLD	4.1	5.1	5.3	4.5	5.2	5.5	5.6	6.4	6.2	5.81
39	AGE) 10 YEARS OLD	4.2	3.1	3.9	4.1	3.5	4.0	4.2	4.4	5.3	5.11
40	AGE) 11 YEARS OLD	3.2	3.0	2.2	2.8	3.0	2.5	2.8	3.0	3.5	4.21
41	AGE) 12 YEARS OLD	2.8	2.2	2.1	1.5	1.9	2.0	1.7	2.0	2.3	2.71
42	AGE) 13 YEARS OLD	1.6	1.9	1.5	1.4	1.1	1.3	1.4	1.2	1.5	1.81
43	AGE) 14 YEARS OLD	1.3	1.1	1.3	1.0	1.0	0.7	0.9	0.9	0.9	1.21
44	AGE) 15 YEARS OLD	0.7	0.9	0.7	0.9	0.7	0.7	0.5	0.6	0.7	0.71
45	AGE) 16 YEARS OLD	0.6	0.5	0.6	0.5	0.6	0.5	0.4	0.3	0.5	0.61
46	AGE) 17 YEARS OLD	0.6	0.4	0.3	0.4	0.3	0.4	0.3	0.3	0.3	0.41
47	AGE) 18 YEARS OLD	0.4	0.4	0.3	0.2	0.3	0.2	0.3	0.2	0.2	0.21
48	AGE) 19 YEARS OLD	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.21
49	AGE) 20 YEARS OLD	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.11

The distribution by class naturally reflects the cumulative effects of shifts in the sales mix over time. Thus, we see (Table 2-1) that the fullsize share of total cars has declined substantially, from near 40 percent in 1969-70 to 31 percent in 1976, and even the absolute number is estimated to have declined since 1972, from almost 34 million to 30 million in 1976. The fullsize segment has thus been rapidly displaced by the rising small car stock. Subcompacts have grown from under 7 million to over 17 million (1969-76), more than doubling their share. Compacts have also increased their share, from 15 percent to almost 19 percent. Midsize cars finally halted their continuing decline in 1976, having been first replaced by fullsize until 1969, and then losing ground, less rapidly, to the small cars.

Imports, reflecting their increased penetration, have experienced a very rapid increase, with over 12 million estimated to be on the road by the end of 1976. Their 1976 share of almost 13 percent is up over 50 percent since 1970, despite the more effective domestic competition during this period.

The distribution of midyear vehicles by vintage (Table 2-2) does not, of course, change rapidly from year to year. Since scrappage rates are strongly affected by age, we can observe the "blips" of high sales years moving steadily through the age distribution. The estimated average age rose to 5.6 years by 1963, then declined steadily to 5.1 by 1969. Since then it has again risen, to 5.7 by 1976. Since 1969, the share of 0-4 age group has declined from 51 percent to 44 percent, while the 5-9 group has increased slightly from 36 percent to 39 percent, and the 10-14 group has risen sharply, from 11 percent to 15 percent.

2.2 VEHICLE MILES TRAVELLED (VMT)

According to Federal Highway Administration estimates, automobile travel has risen rapidly from 542 billion miles in 1958 to 1076 billion by 1976--an average annual growth rate of just under 4 percent. In 1973, growth slowed to almost 3 percent, and 1974 saw the first absolute decline, with a drop of 2.6 percent. However, the effects of the embargo and the sharp gas price increase have clearly been overcome by rising income, increased auto stock, and improved fleet fuel efficiency, with vehicle miles travelled (VMT) growth recovering to the 4 percent range.

To put this growth in perspective, the estimated midyear stock of cars grew at an average annual rate of just under 3.5 percent from 1958 to 1976. Hence, annual mileage per car has risen relatively modestly, at just under 0.5 percent per year. To some extent the statistics pre-1963 are questionable, and thus, using 1963 as a base, we see that growth in VMT per car averaged 1.4 percent for 1963-72, and exactly half that for the 1963-76 period. As Table 2-3 shows (below) the 1972 peak of 11.5 thousand miles per car had still not been surpassed by 1976: VMT per car in 1976 equalled that of 1970. During this period, real disposable family income had actually dropped 3 percent, consumer prices rose almost 50 percent, and gas prices rose 67 percent (58 percent from 1972 to 1975).

TABLE 2-3. VEHICLE MILES

Year	Total	Per Car	Urban %
1958	542	10.2	48.4
1959	570	10.4	48.5
1960	585	10.3	48.4
1961	602	10.2	48.3
1962	626	10.3	50.4
1963	642	10.1	50.3
1964	674	10.2	50.2
1965	706	10.3	53.2
1966	745	10.5	53.2
1967	766	10.5	53.7
1968	806	10.7	53.9
1969	850	10.9	54.2
1970	891	11.1	54.9
1971	939	11.3	55.1
1972	986	11.5	56.5
1973	1017	11.4	57.2
1974	991	10.8	57.8
1975	1028	10.9	58.0
1976	1076	11.1	58.0

A final dimension of interest is the distribution of travel by urban and rural areas. Although the FHWA data must be regarded as very approximate, the urban proportion of pure automobile travel has risen substantially, having now attained 58 percent. Much of this increase is, of course, "definitional" due to the spread of urbanization itself, and it probably reflects the growth of suburbia and the increased use of the private car for commuting.

3. PHYSICAL CHARACTERISTICS AND FUEL ECONOMY

3.1 CURB WEIGHTS

With the exception of subcompacts, Figure 3-1 shows that domestic curb weights all follow similar trends over time, declining until the mid-1960s, thereafter increasing substantially, with luxury and fullsize registering slight declines in 1976. The increases were especially dramatic from 1969 to 1974, emphasizing the relatively recent nature of the gas guzzler behemoths, and suggesting that the desire to maintain "expected" levels of performance and comfort in the face of increasingly severe emissions and safety regulations may have been a partial factor.

Domestic luxury cars gained less than 50 lbs from 1964 to 1969, but more than 350 from 1969 to 1974. Fullsize grew by almost 250 lbs, 1964-69, but ballooned by over 400 lbs more by 1974. Even more dramatically, the midsize curb weight exploded by almost 650 lbs (an 18 percent increase) over the 1969-74 period, compared to a gain of under 200 lbs in the preceding five years.

Small domestic cars have a different pattern. Compacts participated in the general increase, but their rate of gain has been fairly stable, gaining 600 lbs from 1965 to 1974. Average subcompact weight showed little variation pre-1970, when the new domestic models appeared causing an abrupt drop. From 1971 to 1975, however, they gained 600 lbs (a 27 percent increase), before declining in 1976. It is interesting to note that the overall sales-weighted average domestic car curb weight in 1976 was only slightly higher than in 1958-59 (Figure 3-3).

The foreign car trends may be easily summarized (Figure 3-2): since imports first began to sell in significant quantities and offer a full range of models, the average weights have risen significantly, but (in general) less rapidly than domestics. Thus, the foreign subcompacts averaged just 100 lbs less than domestics in 1971, but were 400 lbs lighter by 1975. Note that the foreign luxury class has increasingly included more smaller (but high-priced) vehicles.

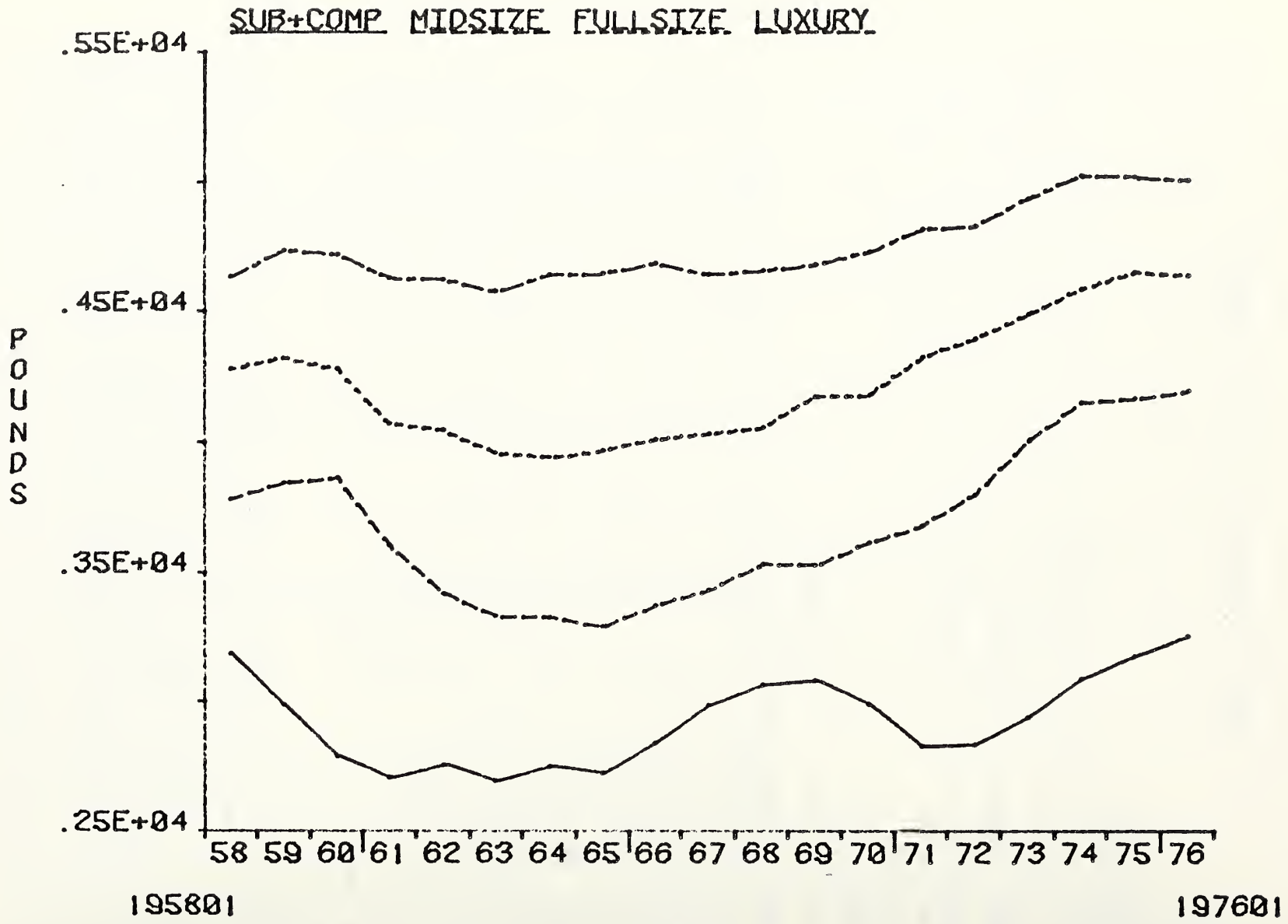

FIGURE 3-1. DOMESTIC CURB WEIGHTS

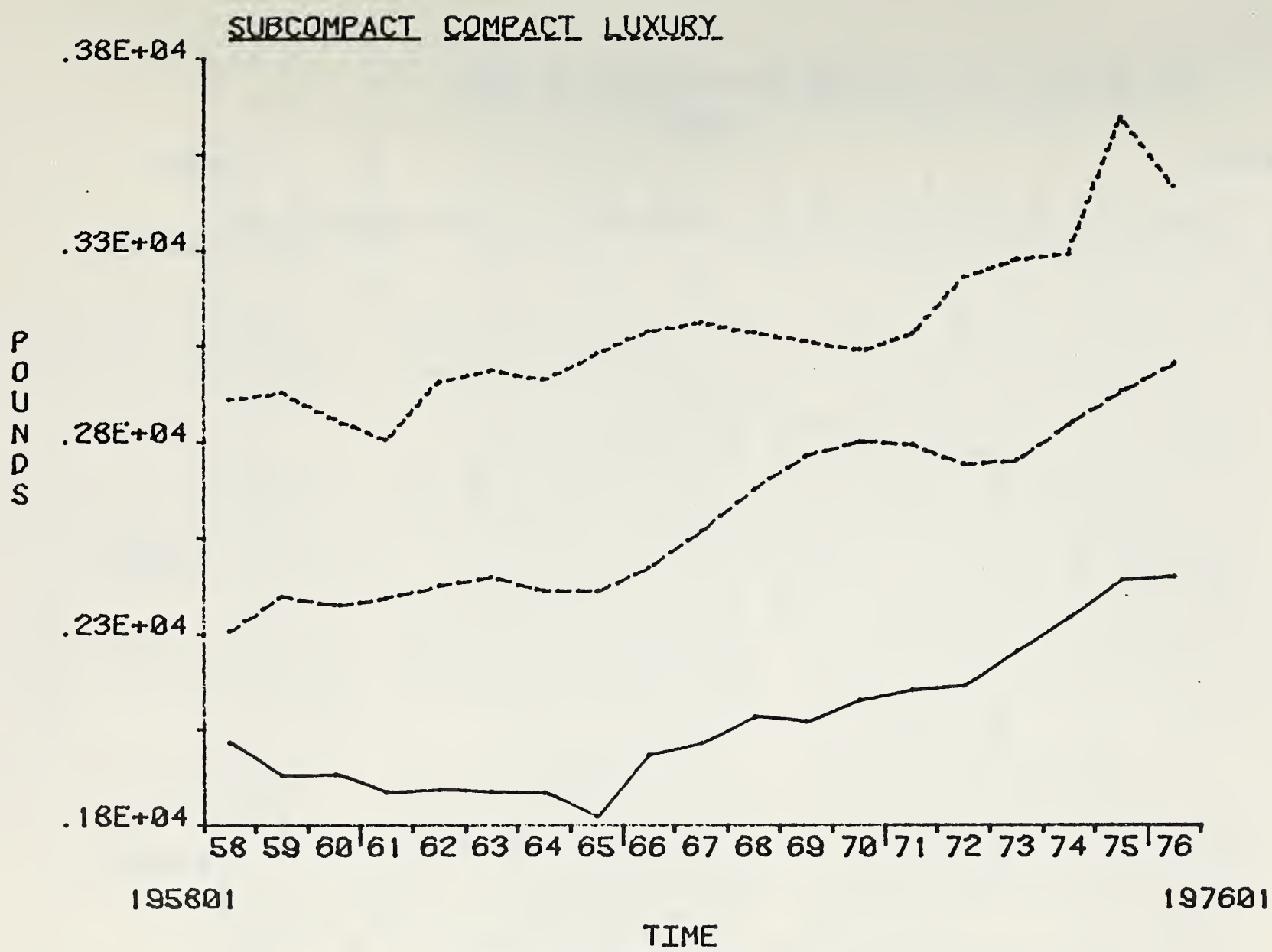

FIGURE 3-2. FOREIGN CURB WEIGHTS

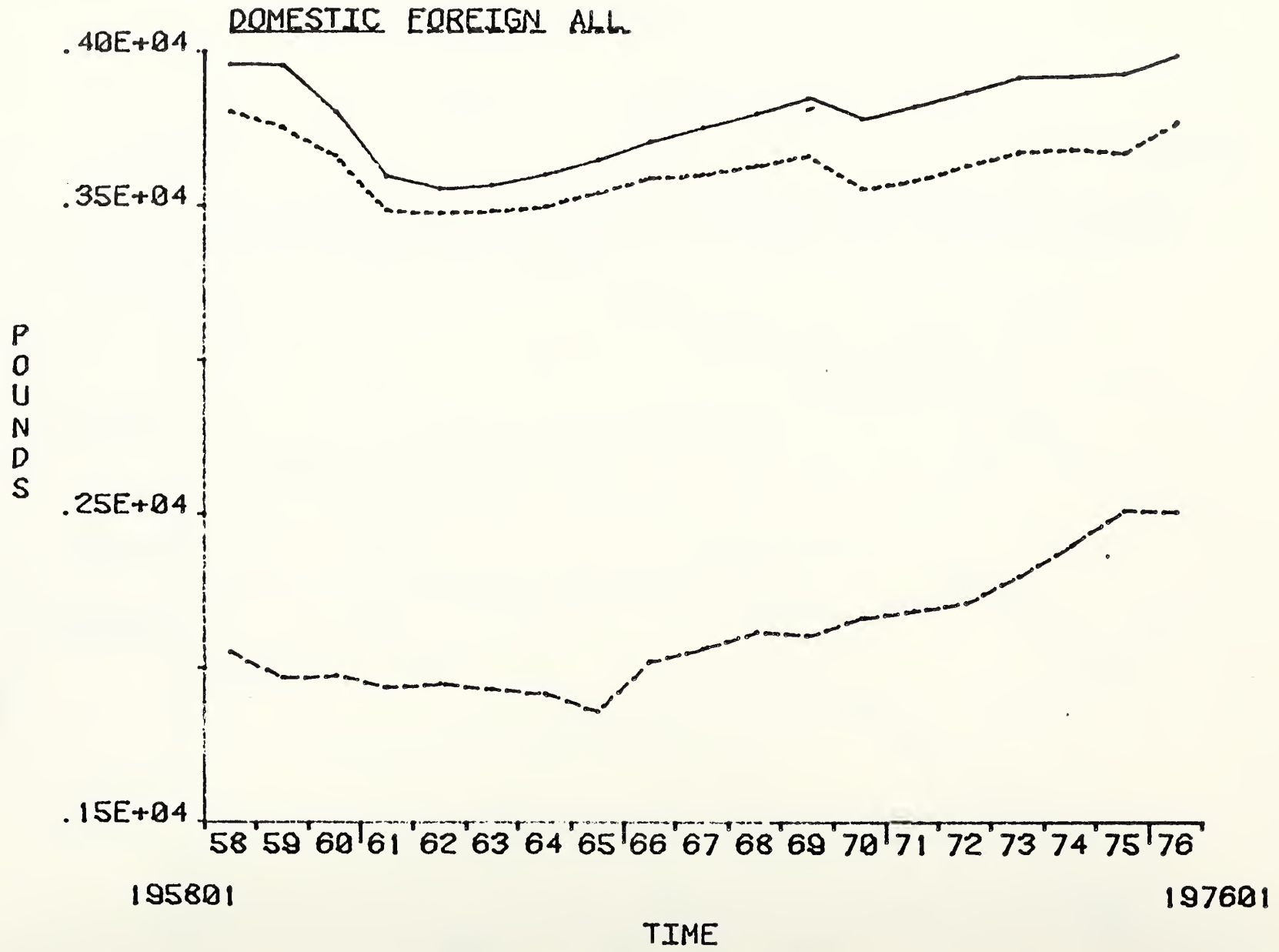

FIGURE 3-3. OVERALL CURB WEIGHTS

3.2 ENGINE DISPLACEMENT

Since engine sizes are strongly correlated with power, and larger engines weigh more, it is not surprising to observe a high degree of correspondence between the trends for curb weight and displacement. It is therefore of interest to look at displacements relative to curb weights--an indicator of power to weight ratios. In Table 3-1, these ratios are shown by class as well as overall averages.

The striking fact is the general decline for domestics since the late 1960s--subcompacts peaked in 1970, compacts in 1969, midsize in 1969, fullsize in 1968, and luxuries in 1970. The only significant trend reversals are subcompacts in 1975--due to the popularity of the Monza-type larger engine options--and the compacts increase in 1972. Foreign cars have shown less variation than domestics, but even here--where ratios are much lower--declines since 1972 are seen for subcompacts and compacts.

Overall, the average domestic engine displacement to curb weight ratio has declined by over 17 percent from 1969 to 1976, while the average for all cars has declined over 18 percent during the same period. Apparently the "muscle-car" boom was a response to rapidly rising prosperity during the 1960s, and had already begun to decline before the oil embargo and government regulations took effect. It is interesting to note that domestic manufacturers were thus willing or able to relatively or absolutely reduce displacements during a period when curb weights generally rose.

3.3 TRANSMISSION TYPE

The primary focus here, of course, is the fraction sold with manual transmissions against automatic. While overdrive does play a marginal role in increasing fuel efficiency of manual transmissions, its impact was minimal over the historical period.

TABLE 3-1. DISPLACEMENT-TO-WEIGHT RATIOS (Cubic Inches/Pounds)

TOTAL:

	DOMESTIC	FOREIGN	ALL
1958	.75867E-01	.39976E-01	.74294E-01
1959	.77352E-01	.40142E-01	.75375E-01
1960	.73605E-01	.40499E-01	.72250E-01
1961	.75760E-01	.40331E-01	.74487E-01
1962	.77614E-01	.42499E-01	.76651E-01
1963	.80193E-01	.41567E-01	.79099E-01
1964	.82326E-01	.42498E-01	.81016E-01
1965	.85285E-01	.42627E-01	.83990E-01
1966	.86647E-01	.43572E-01	.84954E-01
1967	.91775E-01	.45738E-01	.89401E-01
1968	.92886E-01	.45048E-01	.90077E-01
1969	.93209E-01	.44300E-01	.90173E-01
1970	.91608E-01	.45433E-01	.87618E-01
1971	.88533E-01	.45475E-01	.84674E-01
1972	.88830E-01	.46496E-01	.85135E-01
1973	.87248E-01	.45679E-01	.83355E-01
1974	.83184E-01	.44626E-01	.79258E-01
1975	.79261E-01	.43957E-01	.74868E-01
1976	.76986E-01	.42532E-01	.73612E-01

DOMESTIC:

	SUBCOMPACT	COMPACT	MIDSIZE	FULLSIZE	LUXURY
1958	.71003E-01	.80220E-01	.71883E-01	.84780E-01	.79561E-01
1959	.66811E-01	.81316E-01	.75998E-01	.82382E-01	.82124E-01
1960	.80954E-01	.80209E-01	.71106E-01	.81247E-01	.81647E-01
1961	.61624E-01	.84677E-01	.74385E-01	.81430E-01	.85040E-01
1962	.61403E-01	.84548E-01	.75284E-01	.83058E-01	.85469E-01
1963	.61296E-01	.71001E-01	.77027E-01	.80547E-01	.86112E-01
1964	.63171E-01	.77946E-01	.81484E-01	.83660E-01	.87824E-01
1965	.64789E-01	.83824E-01	.84501E-01	.85837E-01	.89003E-01
1966	.63820E-01	.82537E-01	.86009E-01	.87248E-01	.91508E-01
1967	.62998E-01	.90450E-01	.89182E-01	.93154E-01	.92692E-01
1968	.63076E-01	.88055E-01	.91011E-01	.94533E-01	.96042E-01
1969	.62357E-01	.90253E-01	.95290E-01	.92548E-01	.95904E-01
1970	.69126E-01	.88633E-01	.93574E-01	.91304E-01	.96230E-01
1971	.63764E-01	.81047E-01	.92071E-01	.90296E-01	.95009E-01
1972	.61894E-01	.89654E-01	.90784E-01	.89308E-01	.94671E-01
1973	.58922E-01	.89031E-01	.87496E-01	.89887E-01	.93074E-01
1974	.55667E-01	.88365E-01	.88119E-01	.88165E-01	.91538E-01
1975	.61286E-01	.75589E-01	.79800E-01	.88944E-01	.91286E-01
1976	.58089E-01	.78739E-01	.75379E-01	.81258E-01	.91583E-01

FOREIGN:

	FSUBCOMPACT	FCOMPACT	FLUXURY
1958	.39028E-01	.38325E-01	.49837E-01
1959	.39601E-01	.39267E-01	.48438E-01
1960	.39826E-01	.38280E-01	.50369E-01
1961	.39324E-01	.38002E-01	.51788E-01
1962	.41868E-01	.40152E-01	.49801E-01
1963	.40834E-01	.40234E-01	.49732E-01
1964	.40777E-01	.40583E-01	.48916E-01
1965	.42303E-01	.40915E-01	.47908E-01
1966	.43522E-01	.40562E-01	.47119E-01
1967	.46004E-01	.40262E-01	.48951E-01
1968	.45133E-01	.38637E-01	.50803E-01
1969	.43899E-01	.42299E-01	.51137E-01
1970	.44991E-01	.42036E-01	.54043E-01
1971	.45208E-01	.41804E-01	.52922E-01
1972	.46201E-01	.43362E-01	.52593E-01
1973	.45111E-01	.41947E-01	.55810E-01
1974	.43831E-01	.40601E-01	.54743E-01
1975	.43577E-01	.40007E-01	.51703E-01
1976	.41605E-01	.40569E-01	.52454E-01

Table 3-2, showing all the physical characteristics, demonstrates the well-known fact that the American consumer has historically much preferred automatic transmissions. They are convenient, and even appropriate, for American driving habits and conditions. Again, we note the general increase in domestic usage from the mid-1960s, common to all domestic classes. Subcompacts show an abrupt downshift in 1970, as the first genuine "import-fighters" appeared. Since then, however, the percentage with automatics has again crept upwards. Except for subcompacts, the 1976 penetrations of automatics were at historical peaks for domestic cars.

Car sales data for foreign cars on their transmission types are incomplete or nonexistent for the most part, hence the historical data reflect assumptions made concerning their relative positions vis-a-vis domestics.

3.4 ENGINE CONFIGURATION

Since the number of cylinders has a significant impact on fuel economy, we divide sales by class into their percentages by four, six, or eight cylinders. Table 3-2 shows the four- and six-cylinder percentages, with the eight-cylinder being the residual. The four-cylinder engine was almost never used domestically pre-1970, and even after its introduction on a large scale of subcompacts, a shift towards six-cylinder engines began immediately. It should be emphasized that displacement is estimated to have a greater impact on fuel economy than the number of cylinders. A small six-cylinder engine has potentially greater flexibility, response, and smoothness than a four-cylinder of the same displacement. There also was a perception by consumers, with some justification, that some of the early American four-cylinder engines were not as reliable as the six-cylinder engines.

TABLE 3-2. AUTOMOBILE CHARACTERISTICS

LINE	ITEM	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
1	CURB WEIGHT (POUNDS):										
2	DOMESTIC SUBCOMPACT	2707.	2755.	2654.	2599.	2593.	2595.	2622.	2595.	2531.	2560.
3	FOREIGN SUBCOMPACT	1897.	1966.	1882.	1886.	1838.	1844.	1836.	1838.	1771.	1936.
4	DOMESTIC COMPACT	3342.	3323.	3083.	2849.	2762.	2810.	2723.	2777.	2757.	2865.
5	FOREIGN COMPACT	2498.	2257.	2348.	2325.	2342.	2376.	2396.	2362.	2361.	2421.
6	MID-SIZE	3641.	3781.	3840.	3861.	3603.	3414.	3327.	3326.	3290.	3374.
7	FULL SIZE	4185.	4294.	4321.	4279.	4073.	4044.	3958.	3940.	3968.	4013.
8	DOMESTIC LUXURY	4647.	4635.	4737.	4721.	4628.	4619.	4576.	4643.	4651.	4687.
9	FOREIGN LUXURY	2639.	2859.	2876.	2807.	2755.	2907.	2936.	2910.	2978.	3038.
10											
11	ENGINE DISPLACEMENT (CUBIC INCHES):										
12	DOMESTIC SUBCOMPACT	183.6	195.6	177.3	158.4	159.8	159.3	160.6	164.0	164.0	163.9
13	FOREIGN SUBCOMPACT	75.2	76.7	74.5	75.1	72.3	77.2	75.0	74.8	74.9	84.3
14	DOMESTIC COMPACT	204.6	200.1	189.0	171.5	178.7	192.6	193.3	215.1	231.1	236.5
15	FOREIGN COMPACT	81.7	86.5	92.2	89.0	89.0	95.4	96.4	95.9	96.6	98.2
16	MID-SIZE	268.2	271.8	291.8	274.6	268.0	257.1	256.3	271.0	278.0	290.2
17	FULL SIZE	347.3	363.2	355.9	347.7	331.6	335.9	334.6	329.6	340.6	350.1
18	DOMESTIC LUXURY	366.1	368.7	389.1	385.5	393.6	394.8	394.1	407.8	413.9	428.9
19	FOREIGN LUXURY	146.3	142.5	139.3	141.4	142.6	144.8	146.0	142.3	142.7	143.1
20											
21	PERCENT WITH AUTOMATIC TRANSMISSION:										
22	DOMESTIC SUBCOMPACT	0.0	35.0	43.9	54.4	54.0	45.6	42.6	47.0	53.1	57.1
23	FOREIGN SUBCOMPACT	4.4	5.4	13.9	13.9	13.9	13.9	12.6	17.0	23.1	27.1
24	DOMESTIC COMPACT	58.5	52.3	45.1	48.6	53.6	57.4	60.3	58.5	60.2	65.1
25	FOREIGN COMPACT	38.5	32.3	35.1	38.6	43.6	47.4	50.3	48.5	50.2	55.1
26	MID-SIZE	66.5	68.4	70.0	69.2	72.4	73.6	72.3	73.7	75.6	77.5
27	FULL SIZE	95.4	96.5	92.9	86.0	83.4	84.8	84.0	84.5	88.9	91.1
28	DOMESTIC LUXURY	96.8	96.8	97.2	96.6	96.8	96.8	95.4	96.2	96.2	96.2
29	FOREIGN LUXURY	56.5	58.4	60.0	59.2	62.4	63.4	62.3	63.7	65.6	67.5
30											
31	PERCENT WITH 4 CYLINDERS:										
32	DOMESTIC SUBCOMPACT	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.2
33	FOREIGN SUBCOMPACT	97.9	98.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
34	DOMESTIC COMPACT	0.0	0.0	0.0	0.0	0.3	2.0	0.3	0.1	0.0	0.0
35	FOREIGN COMPACT	99.1	99.5	99.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0
36	MID-SIZE	0.0	0.0	0.0	0.5	5.5	6.3	3.9	0.0	0.0	0.0
37	FULL SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38	DOMESTIC LUXURY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39	FOREIGN LUXURY	54.0	52.0	69.7	71.5	74.0	71.9	26.2	29.1	30.1	9.1
40											
41	PERCENT WITH 6 CYLINDERS:										
42	DOMESTIC SUBCOMPACT	0.0	100.0	99.8	99.9	100.0	100.0	100.0	99.9	99.9	99.8
43	FOREIGN SUBCOMPACT	2.1	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44	DOMESTIC COMPACT	84.1	91.7	88.9	93.7	96.6	92.5	92.7	72.5	64.3	62.0
45	FOREIGN COMPACT	0.9	0.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
46	MID-SIZE	25.7	32.6	31.8	41.7	37.2	33.3	34.9	36.6	33.2	24.4
47	FULL SIZE	1.2	1.1	7.7	14.8	19.2	15.5	14.6	13.2	10.6	8.1
48	DOMESTIC LUXURY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
49	FOREIGN LUXURY	45.9	47.8	28.6	28.1	23.2	25.8	71.6	68.7	67.9	89.9

TABLE 3-2. AUTOMOBILE CHARACTERISTICS
(continued)

LINE	ITEM	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
1	CURB WEIGHT (POUNDS)										
2	DOMESTIC SUBCOMPACT	2595.	2593.	2630.	2264.	2207.	2307.	2456.	2698.	2803.	2728.1
3	FOREIGN SUBCOMPACT	1966.	2033.	2021.	2077.	2102.	2114.	2206.	2293.	2392.	2399.1
4	DOMESTIC COMPACT	2994.	3071.	3086.	3052.	3119.	3125.	3218.	3333.	3429.	3513.1
5	FOREIGN COMPACT	2516.	2627.	2714.	2750.	2739.	2689.	2701.	2793.	2882.	2953.1
6	MID-SIZE	3435.	3529.	3523.	3613.	3680.	3800.	4006.	4150.	4170.	4199.1
7	FULL SIZE	4035.	4057.	4175.	4180.	4327.	4400.	4493.	4587.	4656.	4634.1
8	DOMESTIC LUXURY	4646.	4658.	4681.	4730.	4816.	4827.	4938.	5023.	5022.	5001.1
9	FOREIGN LUXURY	3060.	3030.	3010.	2987.	3031.	3177.	3221.	3238.	3595.	3410.1
10											
11	ENGINE DISPLACEMENT (CUBIC INCHES)										
12	DOMESTIC SUBCOMPACT	163.5	163.5	164.0	156.5	140.7	142.8	144.7	150.2	171.8	159.81
13	FOREIGN SUBCOMPACT	90.5	91.8	88.7	93.5	95.0	97.7	99.5	100.5	104.2	99.81
14	DOMESTIC COMPACT	270.9	270.4	278.5	270.5	252.8	280.2	286.5	281.2	259.2	262.81
15	FOREIGN COMPACT	101.3	101.5	114.8	115.6	114.5	116.6	113.3	113.4	115.3	119.81
16	MID-SIZE	306.3	321.1	335.7	338.1	338.8	345.0	350.5	349.4	332.8	316.51
17	FULL SIZE	375.9	383.5	386.4	381.6	390.7	393.0	403.9	408.4	395.5	376.71
18	DOMESTIC LUXURY	430.6	447.4	448.9	455.2	457.6	457.0	459.6	459.8	458.5	458.01
19	FOREIGN LUXURY	149.8	153.9	153.9	161.5	160.4	167.1	179.8	183.7	185.8	178.91
20											
21	PERCENT WITH AUTOMATIC TRANSMISSION										
22	DOMESTIC SUBCOMPACT	67.4	69.3	72.4	45.8	45.3	50.5	56.0	57.6	58.7	57.21
23	FOREIGN SUBCOMPACT	37.4	39.3	42.4	45.8	45.3	50.5	56.0	57.6	58.7	57.21
24	DOMESTIC COMPACT	69.2	72.2	71.4	75.3	82.5	87.8	90.0	89.9	91.4	91.61
25	FOREIGN COMPACT	59.2	62.2	61.4	65.6	72.5	77.8	80.0	79.9	81.4	81.61
26	MID-SIZE	82.6	85.4	86.1	90.2	95.8	97.1	98.6	99.0	99.5	99.71
27	FULL SIZE	94.2	96.4	97.9	98.8	99.5	99.9	99.9	100.0	100.0	100.01
28	DOMESTIC LUXURY	96.4	96.5	97.5	97.2	98.5	98.7	98.8	98.4	95.1	98.81
29	FOREIGN LUXURY	72.6	75.4	75.9	80.2	85.8	87.1	88.6	89.0	89.5	89.71
30											
31	PERCENT WITH 8 CYLINDERS										
32	DOMESTIC SUBCOMPACT	0.8	0.7	0.0	71.3	90.3	88.4	86.0	78.7	62.8	68.71
33	FOREIGN SUBCOMPACT	100.0	97.8	98.2	98.5	98.4	98.3	98.5	98.4	98.2	97.81
34	DOMESTIC COMPACT	0.0	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.01
35	FOREIGN COMPACT	100.0	100.0	100.0	100.0	99.3	100.0	100.0	100.0	100.0	100.01
36	MID-SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01
37	FULL SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01
38	DOMESTIC LUXURY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01
39	FOREIGN LUXURY	14.5	19.6	23.6	20.6	20.7	20.8	18.2	21.3	25.9	33.81
40											
41	PERCENT WITH 6 CYLINDERS										
42	DOMESTIC SUBCOMPACT	99.2	99.3	100.0	28.7	9.7	10.0	12.7	20.4	27.4	27.11
43	FOREIGN SUBCOMPACT	0.0	2.2	1.8	1.5	1.6	1.7	1.5	1.6	1.8	2.21
44	DOMESTIC COMPACT	44.8	46.9	49.2	55.4	52.4	51.7	46.0	57.0	57.7	53.81
45	FOREIGN COMPACT	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.01
46	MID-SIZE	18.9	12.4	9.7	8.9	6.1	3.3	2.1	4.0	5.0	6.51
47	FULL SIZE	5.5	3.7	2.2	1.3	0.7	0.1	0.2	0.3	0.0	0.91
48	DOMESTIC LUXURY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01
49	FOREIGN LUXURY	84.2	78.1	75.0	78.4	78.1	75.9	78.8	76.2	70.6	64.71

The mainstay for domestics has, of course, always been the V8. Historically, the midsize class did have a significant proportion of sixes--between 30 and 40 percent up to 1965--but these soon vanished as displacements and weights began to rise. Nonetheless, an increase in six-cylinder engines has occurred since 1973, and clearly this should be expected to continue. In contrast, the domestic compacts held on to their six-cylinder sales much better. They have fluctuated around 50 percent since 1967. Foreign car sales are dominated by four-cylinder types and always have been. The increase in four-cylinder luxury types is due more to rapid price increase than any design shifts. Foreign luxury eight-cylinder usage has never exceeded 5 percent.

3.5 FUEL ECONOMY

There are no independent, comprehensive, and complete measures of fuel economy. The WEFA estimates (Table 3-3) of new car "on-road" mpg by class are derived from a large sample of CONSUMER REPORTS test results and the statistical analysis of the determinants of fuel economy based on these data.[1/2/] The new car Environmental Protection Agency (EPA)-based estimates are derived from 1975-78 EPA drive cycle results. Therefore, the "historical" class estimates, which are based on a behavioral linkage to physical characteristics, must be regarded as highly approximate. The overall fleet miles per gallon data are taken from the Federal Highway Statistics.

As Table 3-3 shows, "on-road" mpg fell for each domestic class from about 1963 on until 1974. The subcompact data are meaningful only from 1970 on, from which point mpg declined precipitously until 1975. Although falling throughout the 1960s, the most rapid mpg declines occurred between 1968-74. This corresponds to the increase in curb weights, displacements, and automatic transmission penetration previously noted. For the 1963 to 1968 period, fuel efficiency declined by 5 percent for luxury domestics, 7 percent for fullsize, 11 percent for midsize, and 15 percent for compacts. From 1968 to 1974, the corresponding declines are significantly greater: 10 percent, 13 percent, 16 percent and 10 percent, respectively. Over the same periods, the

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1/ See Schink and Loxley, op. cit., and 2/ Loxley et al., op. cit.

declines in the overall domestic new car average were 10 percent and only 5 percent, respectively.

Hence, we see the changes in the mix of sales negated the generally larger class declines from 1968 to 1974. The dominant factor here, of course, is the change in the fullsize market share, from 52 percent in 1965 to 23 percent in 1974, the rising midsize (23 percent to 29 percent) and small car (15 percent to 39 percent) shares. In fact, the overall domestic average peaked in 1961, rose slightly due to the sales decline of 1970, and hit its trough in 1973. From 1973 to 1976, domestic mpgs rose 5 percent, both by class and overall.

The imports' fuel efficiency has, of course, always been substantially above the domestics' due mostly to the sales mix, but also helped by their superiority between similar classes. Even at their best (1971), domestic subcompacts achieved only 93 percent of the import subcompacts' mpg. Like the domestics, imports had sharply declining mpgs during the early 1970s--the subcompact average fell 15 percent from 1968 to 1975.

The EPA-based estimates tend to show similar trends to the "on-road," the most important difference being the deterioration in 1976. It should be noted that this may be due to changes in test procedures from 1975.

TABLE 3-3. AUTOMOBILE FUEL ECONOMY, BY CLASS (MPG)

LINE	ITEM	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
1	OVERALL FLEET MILES PER GALLON	14.33	14.23	14.23	14.21	14.31	14.37	14.19	14.17	14.07	14.00
2											
3	NEW AUTO MILES PER GALLON(WEFA)										
4	TOTAL DOMESTIC AND FOREIGN	13.03	13.18	13.39	13.80	14.24	13.96	13.83	13.71	13.21	13.03
5	SUBCOMPACT	24.97	23.36	23.12	21.50	20.81	20.58	20.99	22.35	22.35	22.42
6	COMPACT	16.09	16.56	16.88	17.50	17.66	17.04	17.30	16.73	16.30	15.86
7	MID-SIZE	13.60	13.31	13.12	13.27	13.84	14.10	14.32	14.20	13.94	13.57
8	FULL SIZE	11.81	11.56	11.60	11.82	12.29	12.11	12.27	12.31	11.94	11.78
9	LUXURY	11.16	11.29	11.07	11.12	11.20	10.99	11.05	10.93	10.67	10.59
10											
11	TOTAL DOMESTIC	12.82	12.69	12.76	13.33	13.84	13.67	13.52	13.34	12.85	12.63
12	SUBCOMPACT	18.02	17.70	18.13	18.42	18.44	18.31	18.23	18.22	18.12	17.92
13	COMPACT	15.42	15.63	16.46	17.37	17.57	16.99	17.24	16.67	16.23	15.77
14	LUXURY	11.03	11.02	10.81	10.85	10.96	10.81	10.88	10.75	10.52	10.42
15											
16	TOTAL FOREIGN	24.06	23.59	24.10	24.01	24.34	23.84	24.00	24.04	24.04	22.66
17	SUBCOMPACT	24.97	24.38	24.90	24.88	25.26	24.83	24.91	24.87	24.88	23.35
18	COMPACT	20.92	21.98	21.31	21.46	21.32	20.72	20.58	20.16	20.43	20.04
19	LUXURY	18.72	17.89	17.88	18.07	18.26	17.48	17.20	17.34	16.81	16.51
20											
21											
22	NEW AUTO MILES PER GALLON (EPA)										
23	TOTAL DOMESTIC AND FOREIGN	17.73	17.82	18.04	18.43	19.07	19.06	18.97	18.87	18.61	18.41
24	SUBCOMPACT	31.46	29.54	29.47	27.60	26.83	26.82	27.29	28.96	29.53	29.40
25	COMPACT	20.67	21.19	21.76	22.67	22.96	22.53	22.97	22.57	22.57	21.96
26	MID-SIZE	18.42	17.93	17.66	17.68	18.54	19.27	19.62	19.54	19.63	19.22
27	FULL SIZE	16.28	15.97	15.93	16.11	16.73	16.79	17.05	17.11	16.97	16.79
28	LUXURY	15.24	15.44	15.14	15.21	15.36	15.30	15.39	15.22	15.15	15.07
29											
30	TOTAL DOMESTIC	17.47	17.21	17.25	17.86	18.58	18.69	18.59	18.41	18.16	17.90
31	SUBCOMPACT	22.67	22.95	23.59	23.97	24.00	24.07	23.93	24.00	24.34	24.06
32	COMPACT	19.91	20.07	21.28	22.52	22.87	22.47	22.91	22.50	22.50	21.86
33	LUXURY	15.09	15.12	14.84	14.89	15.07	15.08	15.19	15.01	14.97	14.86
34											
35	TOTAL FOREIGN	30.30	29.71	30.47	30.36	30.80	30.54	30.78	30.86	31.43	29.56
36	SUBCOMPACT	31.46	30.69	31.51	31.44	32.00	31.84	31.95	31.91	32.54	30.48
37	COMPACT	25.84	27.54	26.70	26.89	26.70	26.31	26.12	25.93	26.38	25.86
38	LUXURY	23.91	22.69	22.59	22.96	23.21	22.37	22.21	22.37	22.02	21.68

TABLE 3-3. AUTOMOBILE FUEL ECONOMY, BY CLASS (MPG)
(continued)

LINE	ITEM	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
1	OVERALL FLEET MILES PER GALLON	13.93	13.79	13.63	13.57	13.57	13.49	13.10	13.43	13.53	13.721
2											
3	NEW AUTO MILES PER GALLON(WEFA)										
4	TOTAL DOMESTIC AND FOREIGN	12.86	12.70	12.36	12.99	12.66	12.35	12.09	12.23	12.48	12.651
5	SUBCOMPACT	22.57	22.17	21.90	21.59	20.58	19.96	18.92	18.08	17.62	18.571
6	COMPACT	15.02	14.78	14.35	14.81	14.41	13.95	13.41	13.30	13.32	13.461
7	MID-SIZE	13.23	12.81	12.48	12.48	11.96	11.54	10.96	10.75	10.89	11.311
8	FULL SIZE	11.59	11.44	10.99	11.19	10.64	10.39	10.06	9.94	9.97	10.411
9	LUXURY	10.65	10.55	10.30	10.58	10.10	9.98	9.68	9.70	9.77	10.111
10											
11	TOTAL DOMESTIC	12.35	12.14	11.77	12.21	11.88	11.61	11.35	11.49	11.66	11.961
12	SUBCOMPACT	17.68	17.60	17.08	19.68	19.71	18.92	17.89	16.88	16.30	17.371
13	COMPACT	14.89	14.65	14.26	14.70	14.27	13.77	13.21	13.10	13.11	13.331
14	LUXURY	10.45	10.34	10.09	10.20	9.82	9.68	9.38	9.29	9.40	9.751
15											
16	TOTAL FOREIGN	22.08	21.63	21.29	21.22	20.51	20.02	19.18	18.72	18.33	19.091
17	SUBCOMPACT	22.81	22.26	21.93	21.87	21.12	20.71	19.80	19.39	19.01	19.751
18	COMPACT	19.44	18.87	17.93	18.09	17.59	17.49	17.20	16.90	16.71	16.981
19	LUXURY	16.31	16.25	16.00	16.26	15.66	14.97	14.48	14.43	13.69	14.791
20											
21											
22	NEW AUTO MILES PER GALLON (EPA)										
23	TOTAL DOMESTIC AND FOREIGN	18.29	18.16	18.05	18.51	18.46	18.23	18.09	18.13	18.24	17.881
24	SUBCOMPACT	29.65	29.14	29.34	28.43	27.91	27.38	26.31	25.00	24.28	24.611
25	COMPACT	21.13	20.77	20.62	20.78	20.64	20.37	19.96	19.53	19.26	18.831
26	MID-SIZE	18.89	18.47	18.43	18.07	17.80	17.39	16.74	16.33	16.34	16.311
27	FULL SIZE	16.63	16.53	16.19	16.18	15.77	15.58	15.33	15.12	14.98	15.071
28	LUXURY	15.19	15.15	15.09	15.17	14.88	14.86	14.64	14.63	14.55	14.561
29											
30	TOTAL DOMESTIC	17.64	17.45	17.28	17.54	17.46	17.28	17.14	17.19	17.21	17.041
31	SUBCOMPACT	23.79	23.79	23.53	26.38	26.97	26.14	25.01	23.44	22.69	23.231
32	COMPACT	21.00	20.65	20.53	20.68	20.50	20.20	19.76	19.32	19.04	18.711
33	LUXURY	14.95	14.88	14.82	14.70	14.51	14.49	14.26	14.09	14.11	14.141
34											
35	TOTAL FOREIGN	28.94	28.40	28.51	27.86	27.65	27.32	26.56	25.80	24.99	25.111
36	SUBCOMPACT	29.93	29.24	29.38	28.73	28.48	28.27	27.41	26.70	25.92	25.961
37	COMPACT	25.11	24.37	23.67	23.41	23.42	23.62	23.58	23.06	22.56	22.141
38	LUXURY	21.47	21.55	21.63	21.63	21.39	20.66	20.37	20.27	18.87	19.591

4. PRICES AND COSTS

4.1 PURCHASE COSTS

The components of total delivered purchase cost for the eight size classes are shown in Table 4-1. Total price by class is the sum of the base price, the value of options installed, transportation charges, and sales tax.

The base price is the average cost of models with purely standard equipment, where the latter is common within each size class. In other words, within size classes, the list prices have been adjusted for quality differentials when features not usually standard have been included. The "value of options installed" is thus higher than the published data. The sum of base plus options does coincide with published estimates.

The "maximum options price" is the cost of the entire basket of options offered by class, the mix being held constant so as to derive a price measure, as opposed to expenditures. Both the base price and the maximum options price data include a fixed weighted average value for domestics, based on 1972 new registrations by class. These again are price indexes, with the sales mix held constant.

The oil embargo, economic recession, and rapid general inflation had a dramatic effect on prices in 1974 and 1975. In the decade 1963-73, the fixed-weight domestic average price rose only 22 percent--a compound rate of a mere 2 percent per year. From 1973 to 1976 it jumped 35 percent--over 10 percent per year. Individually almost every size class exhibits the pattern of a greater change in their base plus options price for the 1974-75 period, the notable exception being fullsize. Here a sharp 8 percent increase in 1971 and the moderate 1974 hike yielded a 1973-76 growth of "only" 26 percent. Domestic luxury cars also received a below average increase (32 percent).

TABLE 4-1. AUTOMOBILE PRICES (DOLLARS)

LINE	ITEM	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
1	TOTAL AUTO PRICES										
2	SUBCOMPACT DOMESTIC	0.	2187.	2222.	2366.	2394.	2358.	2368.	2484.	2534.	2560.
3	SUBCOMPACT FOREIGN	1927.	2030.	1989.	2021.	1959.	2010.	2033.	2044.	1996.	2159.
4	COMPACT DOMESTIC	2640.	2692.	2685.	2521.	2480.	2539.	2474.	2540.	2734.	2815.
5	COMPACT FOREIGN	2736.	2730.	2638.	2626.	2550.	2690.	2785.	2809.	2913.	3096.
6	MID-SIZE	2731.	2807.	3069.	3010.	3016.	2960.	3045.	2932.	2911.	2994.
7	FULL SIZE	3488.	3658.	3614.	3510.	3457.	3441.	3417.	3424.	3504.	3586.
8	LUXURY DOMESTIC	4990.	5135.	5232.	5296.	5349.	5401.	5418.	5630.	5575.	5809.
9	LUXURY FOREIGN	4750.	4771.	5239.	5490.	5546.	5673.	5775.	5885.	6041.	6202.
10											
11	BASE PRICE: DOM.FXD.WTD.AVG.	2547.	2837.	2880.	2844.	2842.	2808.	2797.	2804.	2816.	2841.
12	SUBCOMPACT DOMESTIC	0.	1949.	2021.	2151.	2167.	2138.	2150.	2249.	2281.	2289.
13	SUBCOMPACT FOREIGN	1744.	1834.	1792.	1813.	1741.	1798.	1822.	1819.	1756.	1900.
14	COMPACT DOMESTIC	2320.	2379.	2418.	2280.	2235.	2274.	2211.	2297.	2421.	2462.
15	COMPACT FOREIGN	2416.	2407.	2374.	2344.	2304.	2423.	2515.	2523.	2600.	2739.
16	MID-SIZE	2402.	2486.	2690.	2659.	2652.	2588.	2659.	2521.	2475.	2598.
17	FULL SIZE	2922.	3065.	3021.	2971.	2938.	2898.	2866.	2864.	2884.	2914.
18	LUXURY DOMESTIC	4218.	4345.	4357.	4391.	4578.	4499.	4448.	4601.	4502.	4476.
19	LUXURY FOREIGN	3986.	3987.	4365.	4583.	4736.	4767.	4799.	4855.	4961.	5054.
20											
21	MAX OPTIONS PRICE: DOM.FXD.WTD.AVG.	1102.	1097.	1092.	1009.	989.	986.	989.	986.	994.	990.
22	SUBCOMPACT	972.	896.	832.	845.	896.	888.	890.	799.	802.	789.
23	COMPACT	1007.	1037.	996.	879.	865.	883.	878.	892.	897.	916.
24	MID-SIZE	1039.	1023.	1061.	960.	962.	932.	937.	955.	962.	969.
25	FULL SIZE	1181.	1185.	1173.	1079.	1062.	1049.	1040.	1035.	1045.	1028.
26	LUXURY	1239.	1223.	1257.	1234.	1079.	1144.	1199.	1208.	1217.	1203.
27	VALUE OF OPTIONS INSTALLED:										
28	SUBCOMPACT	96.	105.	102.	111.	119.	110.	107.	119.	134.	138.
29	COMPACT	214.	205.	152.	128.	131.	145.	144.	158.	181.	204.
30	MID-SIZE	215.	204.	248.	218.	228.	233.	244.	270.	294.	326.
31	FULL SIZE	416.	437.	432.	380.	361.	382.	388.	397.	453.	484.
32	LUXURY	584.	594.	665.	687.	585.	670.	737.	785.	830.	859.
33											
34	AVERAGE SALES TAX: RATE	2.03	2.05	2.05	2.16	2.26	2.42	2.46	2.55	2.60	3.18
35	SUBCOMPACT DOMESTIC	0.	43.	43.	49.	51.	54.	55.	61.	63.	77.
36	SUBCOMPACT FOREIGN	37.	40.	39.	41.	42.	46.	48.	50.	49.	65.
37	COMPACT DOMESTIC	51.	53.	52.	52.	53.	58.	58.	63.	67.	85.
38	COMPACT FOREIGN	53.	54.	52.	54.	55.	62.	65.	68.	72.	93.
39	MID-SIZE	53.	55.	60.	62.	65.	68.	71.	71.	72.	90.
40	FULL SIZE	68.	72.	71.	72.	75.	79.	80.	83.	87.	108.
41	LUXURY DOMESTIC	97.	101.	103.	110.	117.	125.	127.	137.	139.	169.
42	LUXURY FOREIGN	93.	94.	103.	114.	120.	132.	136.	144.	150.	188.
43	TRANSPORTATION CHARGES										
44	SUBCOMPACT DOMESTIC	0.	50.	56.	56.	56.	56.	56.	56.	56.	56.
45	SUBCOMPACT FOREIGN	50.	50.	56.	56.	56.	57.	57.	57.	56.	56.
46	COMPACT DOMESTIC	55.	55.	62.	61.	61.	61.	61.	62.	64.	65.
47	COMPACT FOREIGN	53.	54.	60.	60.	60.	60.	60.	60.	60.	60.
48	MID-SIZE	61.	62.	71.	72.	71.	71.	70.	70.	69.	69.
49	FULL SIZE	83.	84.	91.	86.	83.	82.	82.	81.	80.	80.
50	LUXURY DOMESTIC	91.	95.	107.	108.	109.	107.	105.	106.	105.	105.
51	LUXURY FOREIGN	87.	96.	105.	106.	105.	104.	103.	101.	100.	101.

TABLE 4-1. AUTOMOBILE PRICES (DOLLARS)
(continued)

LINE	ITEM	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
1	TOTAL AUTO PRICES										
2	SUBCOMPACT DOMESTIC	2622.	2676.	2729.	2329.	2420.	2501.	2691.	3318.	3992.	4122.
3	SUBCOMPACT FOREIGN	2205.	2293.	2456.	2533.	2567.	2798.	3168.	3747.	4378.	4651.
4	COMPACT DOMESTIC	2961.	3112.	3076.	3027.	3252.	3171.	3355.	3753.	4638.	4999.
5	COMPACT FOREIGN	3223.	3352.	3547.	3842.	4177.	4528.	5063.	5859.	6683.	7762.
6	MID-SIZE	3115.	3379.	3500.	3683.	4048.	4000.	4241.	4626.	5436.	5751.
7	FULL SIZE	3720.	3958.	4189.	4354.	4755.	4759.	4902.	5105.	5967.	6263.
8	LUXURY DOMESTIC	5752.	5908.	6093.	6357.	6854.	6900.	7099.	7859.	9079.	9423.
9	LUXURY FOREIGN	6279.	6236.	6425.	7008.	7292.	8537.	10060.	11186.	14788.	15272.
10											
11	BASE PRICE: DOM.FXD.WID.AVG.	2898.	3031.	3082.	3127.	3330.	3289.	3426.	3730.	4416.	4618.
12	SUBCOMPACT DOMESTIC	2322.	2369.	2405.	1995.	2070.	2101.	2229.	2750.	3285.	3367.
13	SUBCOMPACT FOREIGN	1919.	2000.	2142.	2191.	2209.	2384.	2684.	3166.	3652.	3908.
14	COMPACT DOMESTIC	2535.	2640.	2573.	2490.	2613.	2499.	2620.	2922.	3608.	3847.
15	COMPACT FOREIGN	2794.	2878.	3033.	3278.	3504.	3802.	4259.	4941.	5566.	6492.
16	MID-SIZE	2559.	2744.	2796.	2904.	3106.	2998.	3181.	3481.	4098.	4290.
17	FULL SIZE	2970.	3121.	3209.	3345.	3574.	3555.	3669.	3807.	4490.	4706.
18	LUXURY DOMESTIC	4550.	4613.	4747.	4938.	5299.	5393.	5552.	6284.	7281.	7497.
19	LUXURY FOREIGN	5063.	4935.	5072.	5572.	5730.	6974.	8401.	9481.	12757.	13095.
20											
21	MAX OPTIONS PRICE: DOM.FXD.WID.AVG.	1004.	1000.	1023.	1089.	1143.	1120.	1132.	1177.	1259.	1325.
22	SUBCOMPACT	791.	460.	463.	1015.	1016.	1007.	1012.	1100.	1180.	1223.
23	COMPACT	961.	980.	1008.	1021.	1066.	1031.	1059.	1137.	1227.	1284.
24	MID-SIZE	979.	1010.	1041.	1059.	1125.	1118.	1128.	1178.	1263.	1348.
25	FULL SIZE	1033.	1061.	1089.	1098.	1165.	1150.	1155.	1198.	1280.	1343.
26	LUXURY	1218.	1263.	1258.	1305.	1348.	1268.	1293.	1235.	1296.	1371.
27	VALUE OF OPTIONS INSTALLED:										
28	SUBCOMPACT	158.	151.	159.	172.	178.	222.	272.	338.	396.	421.
29	COMPACT	264.	289.	316.	338.	403.	440.	490.	555.	663.	743.
30	MID-SIZE	385.	439.	495.	548.	665.	725.	769.	820.	923.	1010.
31	FULL SIZE	548.	608.	695.	740.	855.	876.	895.	931.	1018.	1056.
32	LUXURY	909.	975.	1014.	1061.	1134.	1082.	1108.	1079.	1200.	1296.
33											
34	AVERAGE SALES TAX: RATE	3.45	3.76	3.77	3.88	4.22	4.28	4.35	4.47	4.54	4.55
35	SUBCOMPACT DOMESTIC	86.	95.	97.	84.	95.	99.	109.	138.	167.	172.
36	SUBCOMPACT FOREIGN	72.	81.	87.	92.	101.	112.	129.	157.	184.	195.
37	COMPACT DOMESTIC	96.	110.	109.	110.	128.	126.	135.	155.	194.	208.
38	COMPACT FOREIGN	105.	119.	127.	141.	165.	181.	207.	246.	283.	324.
39	MID-SIZE	102.	119.	124.	134.	159.	159.	172.	192.	228.	241.
40	FULL SIZE	121.	140.	147.	159.	187.	190.	199.	212.	250.	262.
41	LUXURY DOMESTIC	188.	210.	217.	233.	272.	277.	290.	329.	385.	399.
42	LUXURY FOREIGN	206.	221.	230.	258.	290.	345.	414.	472.	634.	653.
43	TRANSPORTATION CHARGES:										
44	SUBCOMPACT DOMESTIC	56.	62.	68.	78.	78.	78.	81.	92.	144.	162.
45	SUBCOMPACT FOREIGN	56.	62.	68.	78.	80.	80.	83.	87.	142.	162.
46	COMPACT DOMESTIC	66.	72.	78.	89.	108.	107.	110.	120.	173.	200.
47	COMPACT FOREIGN	60.	66.	72.	85.	105.	105.	107.	118.	170.	199.
48	MID-SIZE	69.	77.	84.	96.	118.	118.	119.	133.	187.	209.
49	FULL SIZE	80.	89.	98.	110.	139.	139.	140.	155.	209.	240.
50	LUXURY DOMESTIC	104.	110.	115.	125.	148.	148.	149.	167.	213.	246.
51	LUXURY FOREIGN	101.	105.	109.	117.	138.	137.	137.	155.	193.	228.

It is, perhaps, not a surprise to observe that small car prices show the most rapid increases, including foreign makes. Obviously the demand for these cars was strong and the manufacturers' pricing reflected this. An additional factor was the strong increase in their options expenditures due to greater luxury features being offered and demanded. Subcompact prices rose most rapidly in the 1972 to 1975 period: up 55 percent for foreign cars, while domestics' prices rose 58 percent in the same period. Foreign compacts' prices rose 52 percent from 1973 to 1976, while domestics' gained 48 percent.

The coincidental nature and timing of the domestic and foreign price increases for these closely competing classes is quite marked. Their rapidity is to a large extent due to the upgrading of small cars from a cheap, "no frills" image towards more comfortable, but still high mpg, vehicles.

Other purchase costs included are taxes and transportation charges. The latter appear to have risen sharply in the 1968-71 and 1974-76 periods. They are estimated to have roughly tripled since 1967. The sales tax rate average rose rapidly in the 1966-68 period, adding 1.16 points to the 1965 rate of 2.6 percent. Apart from the 1971 increase of 0.34 points, the subsequent yearly increases have stayed in the 0.05 to 0.1 range.

The overall average new car purchase cost (Table 4-2) rose very moderately until the 1970s. However, even with the more rapid increases in the 1970s (most notably 1974-76), the trend relative to consumer prices generally has clearly been downward. The 1967 price of $3515 can be compared to a 1958 price of $3627 in 1967 dollars, and a 1976 price of $3384 in 1967 dollars. The low was reached in 1974, when the average price in 1967 dollars was $3106.

TABLE 4-2. AVERAGE NEW-CAR-PURCHASE COST

YEAR	TOTAL	% CHANGE	% CHANGE CPI
1958	3141	1.3	2.7
1959	3221	2.5	0.8
1960	3129	-2.8	1.6
1961	3121	-0.3	1.0
1962	3140	0.6	1.1
1963	3208	2.1	1.2
1964	3223	0.5	1.3
1965	3318	2.9	1.7
1966	3391	2.2	2.9
1967	3515	3.7	2.9
1968	3704	5.4	4.2
1969	3832	3.4	5.4
1970	3833	0.0	5.9
1971	4115	7.4	4.3
1972	4143	0.7	3.3
1973	4280	3.3	6.2
1974	4588	7.2	11.0
1975	5427	18.3	9.1
1976	5769	6.3	5.8

4.2 CAPITALIZED COST PER MILE

Capitalized cost per mile is a combination of purchase, finance, and operating costs. The operating costs, including fuel, are computed annually over a 10 year, 100,000 mile lifetime, and then discounted and combined with purchase cost to yield a present value or capitalized aggregate cost measure. The historical trends in finance rates, operating costs, and capitalized costs per mile are shown in Table 4-3.

TABLE 4-3. MISCELLANEOUS MARKET VARIABLES

LINE	ITEM		1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
11	NEW AUTOS INSTALL. CREDIT RATE	%	8.71	8.68	9.01	9.06	9.01	8.98	8.91	8.96	9.00	9.07
21												
31	CONSUMER PRICE INDICES (1967=100):											
41	TOTAL		84.3	86.6	87.3	88.7	89.6	90.6	91.7	92.9	94.5	97.2
51	AUTO REPAIRS		82.4	83.7	85.5	87.2	89.3	90.4	91.6	92.8	94.5	96.2
61	AUTO INSURANCE PREMIUMS		62.0	71.1	75.6	77.5	78.2	77.5	78.8	82.9	90.8	97.3
71	TIRES		92.9	96.2	94.1	87.4	83.2	87.4	91.5	92.0	94.2	96.4
81	MOTOR OIL		78.4	79.7	80.4	81.7	85.6	87.7	89.2	92.3	93.4	95.8
91	PARKING FEES		85.6	86.7	87.9	89.1	90.3	91.5	92.7	94.0	95.6	96.6
101												
111	AVG RETAIL PRICE OF GASOLINE	CENTS	31.0	30.4	30.5	31.1	30.8	30.6	30.4	30.3	31.1	32.1
121												
131	EXCLUDING TAXES	CENTS	22.1	21.5	21.2	21.0	20.5	20.4	20.1	20.0	20.7	21.6
141	STATE AND LOCAL TAX	CENTS	5.9	5.9	6.1	6.1	6.2	6.3	6.3	6.4	6.4	6.5
151	FEDERAL TAX	CENTS	3.0	3.0	3.3	4.0	4.0	4.0	4.0	4.0	4.0	4.0
161												
171												
181	CAPITALIZED COST PER MILE($/MILE)											
191	AVG NOMINAL CAP. COST PER MILE		0.1008	0.1032	0.1056	0.1045	0.1035	0.1049	0.1060	0.1069	0.1105	0.1143
201												
211	AVG REAL CAP. COST PER MILE		0.1499	0.1494	0.1516	0.1476	0.1442	0.1451	0.1449	0.1442	0.1465	0.1474
221												
231	CAPITALIZED COST PER MILE BY SIZE:											
241	SUBCOMPACTS		0.0691	0.0727	0.0736	0.0773	0.0784	0.0797	0.0796	0.0791	0.0803	0.0828
251	COMPACTS		0.0880	0.0889	0.0894	0.0873	0.0866	0.0893	0.0885	0.0914	0.0959	0.0997
261	MID-SIZE		0.0941	0.0965	0.1018	0.1015	0.1007	0.1009	0.1022	0.1014	0.1034	0.1074
271	FULL SIZE		0.1099	0.1137	0.1142	0.1132	0.1115	0.1132	0.1128	0.1137	0.1176	0.1216
281	LUXURY		0.1347	0.1371	0.1408	0.1428	0.1400	0.1471	0.1476	0.1518	0.1540	0.1576
291												
301	CAP. COST PER MILE BY FOR/DOM:											
311	TOTAL DOMESTIC		0.102	0.104	0.107	0.104	0.103	0.105	0.107	0.109	0.113	0.117
321	SUBCOMPACT		0.0461	0.0788	0.0799	0.0824	0.0830	0.0837	0.0843	0.0867	0.0892	0.0916
331	COMPACT		0.0886	0.0900	0.0899	0.0874	0.0867	0.0893	0.0885	0.0914	0.0959	0.0997
341	LUXURY		0.1351	0.1381	0.1415	0.1433	0.1405	0.1474	0.1478	0.1521	0.1541	0.1577
351												
361	TOTAL FOREIGN		0.074	0.076	0.076	0.078	0.077	0.079	0.080	0.080	0.081	0.086
371	SUBCOMPACT		0.0691	0.0719	0.0719	0.0731	0.0722	0.0741	0.0748	0.0757	0.0764	0.0813
381	COMPACT		0.0847	0.0848	0.0851	0.0855	0.0846	0.0883	0.0902	0.0917	0.0946	0.0996
391	LUXURY		0.1201	0.1222	0.1304	0.1307	0.1355	0.1406	0.1428	0.1452	0.1500	0.1553

TABLE 4-3. MISCELLANEOUS MARKET VARIABLES
(continued)

LINE	ITEM		1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
11	NEW AUTOS INSTALL. CREDIT RATE	%	9.78	10.24	10.81	11.56	11.19	10.98	11.15	11.80	12.24	12.12
21												
31	CONSUMER PRICE INDICES (1967=100):											
41	TOTAL		100.0	104.2	109.8	116.3	121.3	125.3	133.1	147.7	161.2	170.5
51	AUTO REPAIRS		100.0	105.5	112.2	120.6	129.2	135.1	142.2	156.8	176.6	187.7
61	AUTO INSURANCE PREMIUMS		100.0	102.3	111.4	126.7	141.1	140.5	138.0	138.1	145.9	187.9
71	TIRES		100.0	105.6	109.7	113.1	116.3	115.9	110.6	118.4	126.3	133.0
81	MOTOR OIL		100.0	104.8	109.4	114.4	120.0	123.6	127.9	145.5	155.3	159.7
91	PARKING FEES		100.0	104.8	111.3	124.0	135.3	144.5	152.8	158.9	172.1	183.9
101												
111	AVG RETAIL PRICE OF GASOLINE	CENTS	33.2	33.7	34.8	35.7	36.4	36.1	38.8	52.4	57.2	59.5
121												
131	EXCLUDING TAXES	CENTS	22.5	22.9	23.8	24.5	25.2	24.5	26.9	40.4	45.4	47.4
141	STATE AND LOCAL TAX	CENTS	6.6	6.8	7.0	7.1	7.2	7.7	7.9	8.0	7.8	8.0
151	FEDERAL TAX	CENTS	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
161												
171												
181	CAPITALIZED COST PER MILE($/MILE)											
191	AVG NOMINAL CAP. COST PER MILE		0.1192	0.1353	0.1324	0.1388	0.1488	0.1510	0.1587	0.1800	0.2025	0.2142
201												
211	AVG REAL CAP. COST PER MILE		0.1493	0.1507	0.1511	0.1495	0.1537	0.1510	0.1494	0.1527	0.1574	0.1574
221												
231	CAPITALIZED COST PER MILE BY SIZE:											
241	SUBCOMPACTS		0.0847	0.0883	0.0944	0.1007	0.1055	0.1102	0.1189	0.1406	0.1599	0.1694
251	COMPACTS		0.1053	0.1105	0.1146	0.1193	0.1280	0.1295	0.1379	0.1596	0.1831	0.1965
261	MID-SIZE		0.1123	0.1198	0.1266	0.1357	0.1472	0.1490	0.1592	0.1835	0.2061	0.2183
271	FULL SIZE		0.1267	0.1336	0.1424	0.1518	0.1644	0.1667	0.1752	0.1978	0.2226	0.2303
281	LUXURY		0.1627	0.1685	0.1773	0.1891	0.2028	0.2070	0.2188	0.2535	0.2893	0.3016
291												
301	CAP. COST PER MILE BY FOR/DOM:											
311	TOTAL DOMESTIC		0.123	0.129	0.136	0.142	0.152	0.154	0.160	0.180	0.203	0.216
321	SUBCOMPACT		0.0948	0.0980	0.1030	0.0994	0.1048	0.1083	0.1158	0.1391	0.1593	0.1670
331	COMPACT		0.1054	0.1105	0.1146	0.1189	0.1275	0.1286	0.1366	0.1579	0.1813	0.1950
341	LUXURY		0.1629	0.1689	0.1777	0.1893	0.2033	0.2059	0.2160	0.2494	0.2804	0.2937
351												
361	TOTAL FOREIGN		0.090	0.093	0.099	0.107	0.112	0.120	0.131	0.155	0.177	0.189
371	SUBCOMPACT		0.0843	0.0881	0.0943	0.1009	0.1059	0.1114	0.1213	0.1420	0.1605	0.1714
381	COMPACT		0.1041	0.1090	0.1169	0.1273	0.1373	0.1443	0.1570	0.1830	0.2053	0.2304
391	LUXURY		0.1595	0.1620	0.1701	0.1867	0.1964	0.2185	0.2484	0.2830	0.3540	0.3684

The installment credit rate rose rapidly in the 1966-70 period after having been fairly stable, gaining 2.56 points in five years. After moderating in the post-1970 economic recovery it again jumped in 1974-75 with the onset of rapid inflation. The consumer price indexes (CPI) for repairs, insurance, tires, oil, and parking can all be compared to the overall CPI since they are all based on 1967. Relatively speaking, repairs and insurance are the most important in determining non-fuel operating cost, and it is obvious that they have risen most rapidly--by almost 90 percent for the decade 1967-76, 18 percentage points greater than the rise in the overall CPI. The less important tires and oil indexes have risen much less rapidly.

Fuel cost is determined by new car mpg and the per gallon price. The average mpg for new cars, by class, generally declined through 1974, rising slightly in 1975-76 (see Section 3.5). Since the average gasoline price grew from 30 cents in 1958 to only 36 cents by 1972, the average fuel cost per mile gained about 25 percent, 1958-72, compared to a 45 percent increase in consumer prices generally. Since then, of course, gasoline prices have exploded, the pre-tax price gaining 10 percent in 1973, 50 percent in 1974, and 12.5 percent in 1975. The 1976 pre-tax price is almost twice the 1972 level.

The impacts of price increases on cost per mile (CPM) by class naturally vary depending upon their relative weights. Thus, purchase cost dominates the luxury class CPM, while insurance and repairs have a greater impact for subcompacts.

Looking first at the overall average, the remarkable observation is the relative stability of the real (relative to CPI) CPM in 1967 dollars. During the 1960s, it varied from .144 ($/mile) to .151, for a change of 5 percent. In fact, 1973's CPM of .149 (in 1967 $/mile) equalled the 1967 and 1958 values. It then rose 5 percent in the two years 1974-75. The most rapid increases in the 1967-73 period (in current dollar terms) were imports (up 44 percent), midsize (42 percent), and fullsize (38 percent), compared to the average CPM increase of 33 percent. Due to the imports' rapid rise, the foreign subcompacts actually had a higher CPM than domestic subcompacts by 1972-73 (5 percent above).

The particularly interesting facts are that, pre-'74, cost per mile rose very little relative to consumer prices generally, and the current dollar increase of 33 percent (1967-73) was substantially higher than the average purchase cost increase of 22 percent. In contrast, the 1973-76 period has seen a 5 percent rise in the real CPM, and a 33 percent rise in current dollars--which exactly matches the average purchase cost increase. Therefore, the operating cost increases of fuel, insurance, and repairs have (on average) matched the purchase cost increases. Both purchase and operating costs have therefore provided powerful stimuli in changing the sales mix substantially since the early 1970s.

PART B
PROJECTIONS OF FUTURE TRENDS

INTRODUCTION

This section presents projections of automobile demand through 2000 using the Wharton EFA Motor Vehicle Demand Model (Mark I). A baseline forecast is presented using a recent Wharton Annual Model forecast to supply the demographic, energy, and economic input assumptions. An alternative simulation of extended Corporate Average Fuel Economy (CAFE) regulations beyond 1985 is also presented.

In Section 5, Subsection 5.1 outlines the assumptions incorporated into the economic and automobile forecasts. Subsection 5.2 discusses the short term outlook, 5.3 presents the longer range prospects, and 5.4 details some particularly critical assumptions and uncertainties. The alternative simulation is discussed in Subsection 5.5. The detailed tables of results are presented in Appendix A of the control forecast, and Appendix B for the alternative.

5. FORECAST AND SCENARIO RESULTS

5.1 ASSUMPTIONS

The inputs utilized for this forecast come from the Wharton Annual Model Control Forecast of December 1978, extended to 2000 in February 1979. Key assumptions are:

(1) Demographic

The July 1978 Current Population Report P-20 gives the Census projections; we have used the Series II fertility assumptions which yield an annual growth of 0.9 percent. Family formation and age distribution projections are made consistently. Details are shown in Table 17 of Appendix A.

(2) Fiscal and Monetary Policy

Implementation of the $18.2 billion tax cut already signed occurs in January 1979, coupled with an additional $12.6 billion reduction in January 1980. This latter assumes a response to the low growth outlook for 1980 which, of course, may not occur.

Beyond the $11 billion increase in 1979, we assume that the Social Security tax rate will be kept constant at 12.26 percent, and the earnings base will be held constant through 1981, rising at a 7 percent rate thereafter. The Federal deficit is estimated at $40.6 billion in 1979 and $64.5 billion in 1980, with real defense spending growing by 1.7 percent after 1980, and nondefense expanding at a 2.5 percent rate. With the dollar apparently stabilized, an easier monetary policy can be expected in late 1979, which, together with the slowing in real growth, should cause the discount rate to drop

to under 9 percent in 1980, and in the longer term we have assumed a trend towards a 6.5 percent rate.

(3) Energy

The October Energy Bill provisions are incorporated, including gradual deregulation of "new" gas, complete by 1985, control of industrial use, and the personal and investment tax credits for conservation spending. The Oil Producing Exporting Countries (OPEC) prices were assumed to rise 8 percent in 1979, and follow US inflation rates through the 1980s, stabilizing at a 5 percent annual rate of increase. Alaskan production holds steady at 1.2 million barrels per day, while US lower 48 production continues its declining trend. Since these assumptions were made, the oil price increases have, of course, been much more severe, thereby much worsening the short term economic and automobile sales results for 1979-80.

5.2 SHORT TERM OUTLOOK

The short run outlook continues to be weak from mid-1979 through 1980, with the recovery beginning in 1981 and gathering strength through 1982. Total retail sales fall from 1978's 11.3 million units to 10.6 in 1980, rising to 11.2 for 1982. Precise timing is currently very problematic. The near term movements are very sensitive to the unsettled energy and economic situations, both at home and abroad.

The macroeconomic forecast is for slow real GNP growth for the rest of 1979 on into 1980, following a better than expected past 6 months. The rate of inflation should recede slowly from its current double-digit region. On the energy side, we anticipate that Iranian production will return to 4.5 million barrels/day by early 1980 without destabilizing production or pricing actions by other OPEC members.

As a result, the current spot shortages of fuel--particularly unleaded--can be expected to become more widespread without, however, triggering a formal rationing program. The tight supply will undoubtedly induce further

improvement in retail margins and we project an average regular leaded price of 73 cents for 1979, up 12 percent over last year, while regular unleaded could easily average 85 cents. As a result, there will be lower growth in vehicle miles, 2.5 percent for 1979, with a mere 1 percent increase in automobile fuel consumption.

Total vehicle stock (cars in operation) grows by over 2 percent annually through 1982, as scrappage is projected to decline rapidly, having now caught up with the deferred scrappage of 1974-75 through its above average 1977-78 rates.

For the sales mix, 1979 should be a good year for domestic compacts and fullsize (if gasoline availability is not affected), the latter continuing its upward trend in market share with new Ford models and Chrysler's reentry into this segment, while the new Mustang, Capri and GM's "X-cars" should be well received. The good fullsize outlook is expected to weaken midsize sales, while the subcompacts will lose somewhat to compacts.

The new domestic models and continuing upward pressure on prices are expected to lead to a further slight decline in the imports' share, while VW of America's domestic production and the decline in captive imports "redefines" the imports' share downward by about one percentage point. The recent gas price increases and supply problems will increase the imports' share significantly in 1979-80 due to lack of domestic subcompact capacity.

5.3 LONG TERM OUTLOOK

The current forecast indicates a relatively healthy market in the medium to long run. Strong sales growth prevails during the next economic cycle through the mid-1980s. After a down cycle at the end of the decade, the 1991-2000 period exhibits a moderate, if unspectacular, growth trend. Retail sales average a better than 3 percent annual growth rate for 1980-85, are essentially flat through 1990, thereafter averaging slightly over 2 percent per annum growth through the end of the century.

The growth of cars in operation fluctuates between 1.5 percent and 2 percent per year, with the highest five-year average occurring for 1985-90. The

stock reaches 146 million by 2000, 27 percent of which are subcompacts, 22 percent compacts, 26 percent midsize, 14 percent fullsize, and 11 percent luxury. Slightly under 20 percent are foreign.

Miles travelled per vehicle grow most strongly in the 1984-87 period, averaging a 1.3 percent average annual growth rate for the decade 1980-90. The period 1990-2000 see a slower growth rate, at slightly below 1 percent per annum. Together with the growth in vehicle stock, these results yield vehicle miles travelled (VMT) growth of 3.2 percent from 1978-1990 slowing to a 2.5 percent rate through 2000. With the current CAFE standards in effect through 1985, and before providing for any extension beyond then, the average fleet fuel efficiency will increase rapidly, exceeding 17 mpg by 1985, and reaching 20 mpg by 1990. The joint result of the VMT and fleet mpg forecasts is a decline in fuel consumed in the 1982-86 period. Thereafter, consumption begins to creep back up, but it is 1992 before the estimated 1981 peak of 89 billion gallons is exceeded.

5.4 ASSUMPTIONS AND UNCERTAINTIES

The downside risks with respect to these forecast results are clearly substantial, and outweigh the possible positive developments. To that extent this may be deemed an optimistic scenario. Current uncertainties are:

(1) OPEC policies could well be more severe, given the treaty signing and their new price hike, with a continuation of sharper price increases and lower production distinctly possible. Price increases could be set as high as 10 percent annually, rather than the 6 percent rate assumed for the early 1980s.

(2) Domestic decontrol seems much more certain now, and while we have incorporated a gradual aligning of domestic international prices in the current forecast, a definite commitment to a more radical decontrol policy--possibly being completed by 1982--seems to be taking shape, despite the domestic inflationary fallout.

(3) The macroeconomic forecasts clearly indicate a need for further tax relief in 1980, and an assumed cut of $12.6 billion incorporated, despite the current emphasis on moving toward a balanced budget. Should this stimulus be omitted or delayed, the upturn will be much weaker, with GNP growth trimmed by 0.5 percent in each year from 1980-82, and the unemployment rate raised a full percentage point.

(4) We continue to project compliance with the CAFE standards, without significant market disruptions. The downsizing program assumed in the current forecast is broadly consistent with industry plans and projections. Compared to their 1975 average curb weights, the 1985 levels range from 18 percent lower for subcompacts up to 30 percent reductions for the fullsize and luxury classes. Even so, substantial efficiency (technological) improvements are required to meet the rapid pace required by the interim standards.

A major share of these gains is seen resulting from the widespread use of diesels for the early 1980s. While the NO_X standards have always been recognized as a problem area, the new particulate levels under discussion are apparently a severe threat to widespread dieselization. In that case, meeting the 1982-83 interim standards is a more difficult task. The volume and pattern of domestic sales could then suffer from a short run disruption due to the rationing or removal from the market of larger vehicles. The current forecast already includes slower price increases for the smaller domestics, this tendency would presumably then become greater.

5.5 EXTENDED MPG STANDARDS SCENARIO (See Table 5-1 and Figures 5-1 to 5-5.)

One of the policy issues currently under debate is the question of new CAFE levels after 1985. The enclosed scenario assumes that the CAFE levels are increased at a 5 percent per annum rate through 1990--resulting in a CAFE

of about 35 for 1990. We also assume that purchase prices increase about 1 percent for each 1 mpg gain in CAFE over the control solution.

Initially, sales are affected negatively, with a loss of 230,000 units in 1986, almost 2 percent. By 1991, however, sales are higher by almost 3 percent and the net effect through 1995 is clearly positive. The total stock, however, does remain below its control path, although the change decays rapidly after 1990. On balance, foreign sales are helped relatively, although the increase in market share is very small. Small cars receive some impetus also due to higher prices encouraging switching to cheaper vehicles. Note that as a result, the domestic EPA average peaks at slightly about 35, while the foreign EPA average should actually be increased slightly if 35 were the standard.

The most pronounced impacts are seen in the average fleet fuel economy, VMT, and fuel consumption forecasts. The fleet average naturally rises progressively as the more fuel efficient vehicles enter the fleet, aided by the higher scrappage during the early years. The fleet average is raised above the control solution by 7 percent in 1990, 18 percent in 1995, and 24 percent by 2000. The most rapid gain, therefore, occurs in the 1990-95 period. As a result, VMT increase, due to lower fuel costs/mile, reaching an 8 percent higher level by 2000.

Although the VMT increase thus offsets some of the mpg improvement, the net fuel savings are still very substantial. By 2000, consumption is 13 percent below the control forecast, a savings of 13.5 billion gallons per year. Overall, the rate of growth of fuel consumption, 1985-2000, falls to less than 0.5 percent per annum, compared to the control solution's 1.4 percent average rate.

TABLE 5-1. SUMMARY TABLE

		1970	1975	1978	1980	1985	1990	1995	2000
RETAIL SALES, TOTAL	(mills)	8.4	8.7	11.3	10.6	12.5	12.9	14.6	15.9
average annual growth rate			0.5	9.2	-3.2	3.4	0.5	2.6	1.7
COMPACT VANS	(mills)	0.115	0.124	0.175	0.185	0.260	0.290	0.350	0.410
average annual growth rate			1.5	12.2	2.8	7.0	2.2	3.8	3.2
NEW CAR SALES	(mills)	8.3	8.6	11.1	10.4	12.3	12.6	14.3	15.5
average annual growth rate			0.5	9.2	-3.3	3.3	0.5	2.6	1.7
IMPORTS SHARE	(%)	14.2	18.2	17.8	16.9	16.1	18.6	20.0	20.6
AVERAGE NEW CAR PRICE	($)	3,833	5,427	6,830	7,889	11,050	14,476	18,760	24,103
average annual growth rate			7.2	8.0	7.5	7.0	5.5	5.3	5.1
COST PER MILE	(¢)	13.9	20.3	25.2	29.1	40.1	53.7	71.2	93.6
average annual growth rate			7.9	7.5	7.5	6.6	6.0	5.8	5.6
CONSUMER PRICE INDEX	(1967=100))	116.3	161.2	195.3	227.2	311.6	396.8	497.7	618.4
average annual growth rate			6.7	6.6	7.9	6.5	5.0	4.6	4.4
DISP. FAMILY INCOME	(1972$)	9,810	9,420	9,830	9,720	10,000	10,490	11,340	12,300
average annual growth rate			0.8	1.4	-0.6	0.6	1.0	1.6	1.6
SALES RATE		0.105	0.088	0.110	0.100	0.106	0.100	0.105	0.105
SCRAPPAGE RATE		0.077	0.062	0.107	0.071	0.096	0.083	0.088	0.089
CARS IN OPERATION YEAR END	(mills)	81.4	95.6	99.4	104.6	113.8	124.8	134.4	146.3
average annual growth rate			3.3	1.3	2.6	1.7	1.9	1.5	1.7
TOTAL POPULATION	(mills)	204.9	213.5	218.5	222.2	233.0	243.6	252.9	260.5
average annual growth rate			0.8	0.8	0.8	1.0	0.9	0.8	0.6
LICENSED DRIVERS	(mills)	111.5	129.8	141.2	147.2	159.5	169.7	178.2	188.2
average annual growth rate			3.1	2.8	2.1	1.6	1.2	1.0	1.1
VEHICLE MILES	(mills)	891	1,028	1,186	1,264	1,482	1,731	1,961	2,2229
average annual growth rate			2.9	4.9	3.2	3.2	3.2	2.5	2.6
AVERAGE TOTAL FLEET MPG		13.6	13.5	13.8	14.2	17.1	19.7	20.8	20.9
average annual growth rate			-0.1	0.7	1.4	3.8	2.9	1.1	0.1
FUEL CONSUMPTION	(bills)	65.7	76.0	86.2	88.8	86.9	87.7	94.4	106.6
average annual growth rate			3.0	4.3	1.5	-0.4	0.2	1.5	2.5
GASOLINE PRICE, REGULAR	(¢)	35.7	57.2	65.3	77.5	107.3	137.8	174.2	217.1
average annual growth rate			9.9	4.5	8.9	6.7	5.1	4.8	4.5

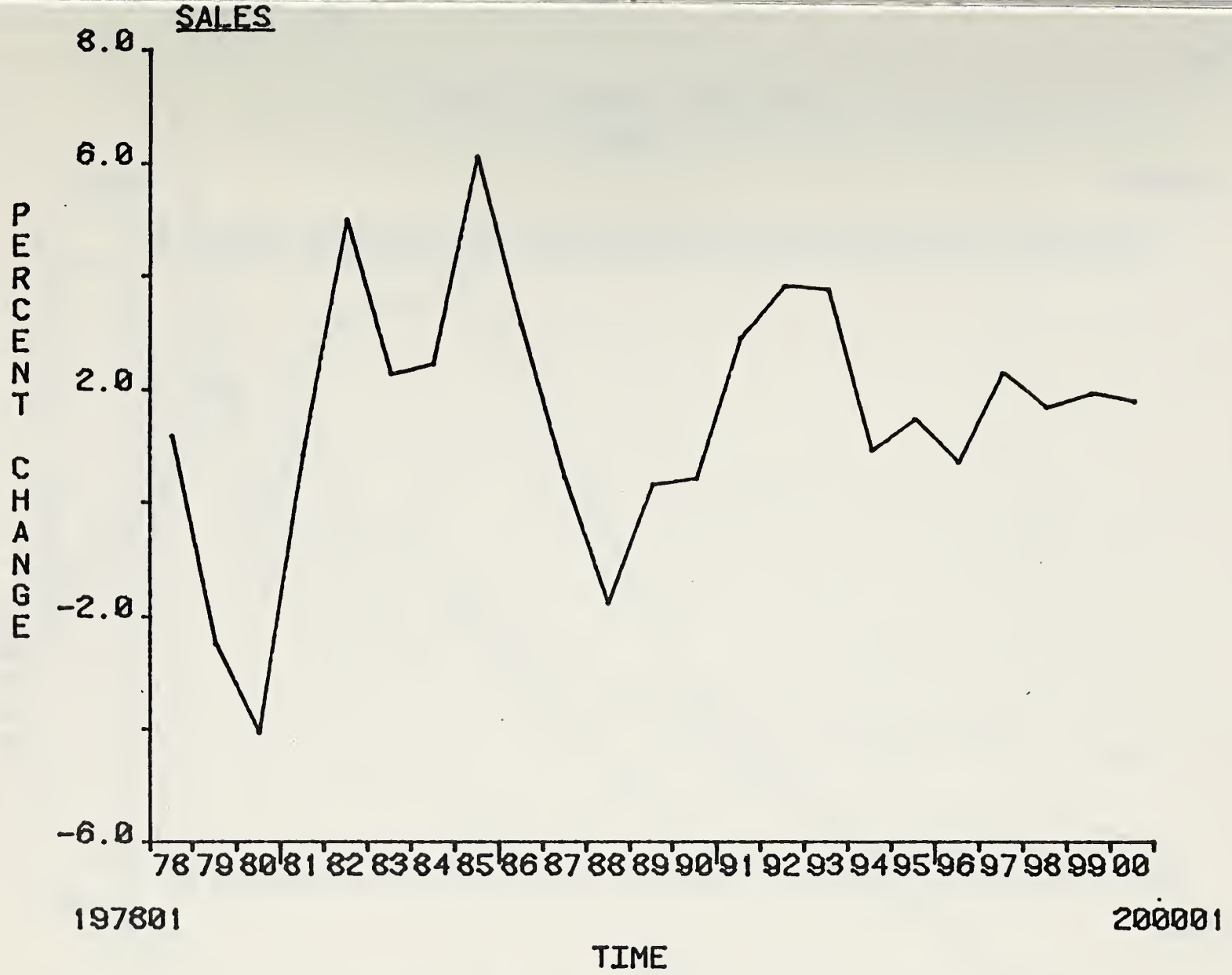

FIGURE 5-1. NEW CAR RETAIL SALES--PERCENT CHANGE

FIGURE 5-2. IMPORTS MARKET SHARE

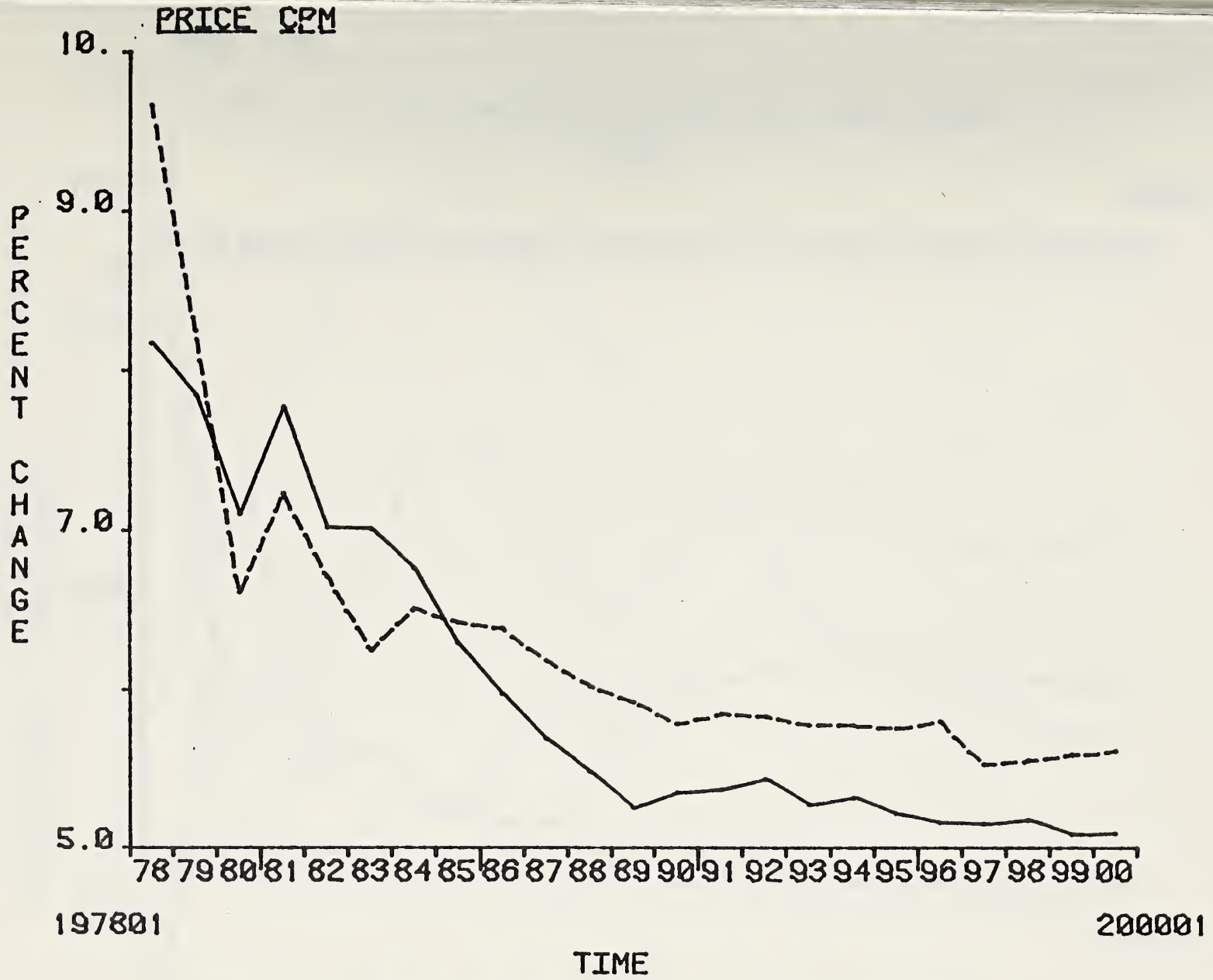

FIGURE 5-3. NEW CAR PRICE AND COST PER MILE--PERCENT CHANGE

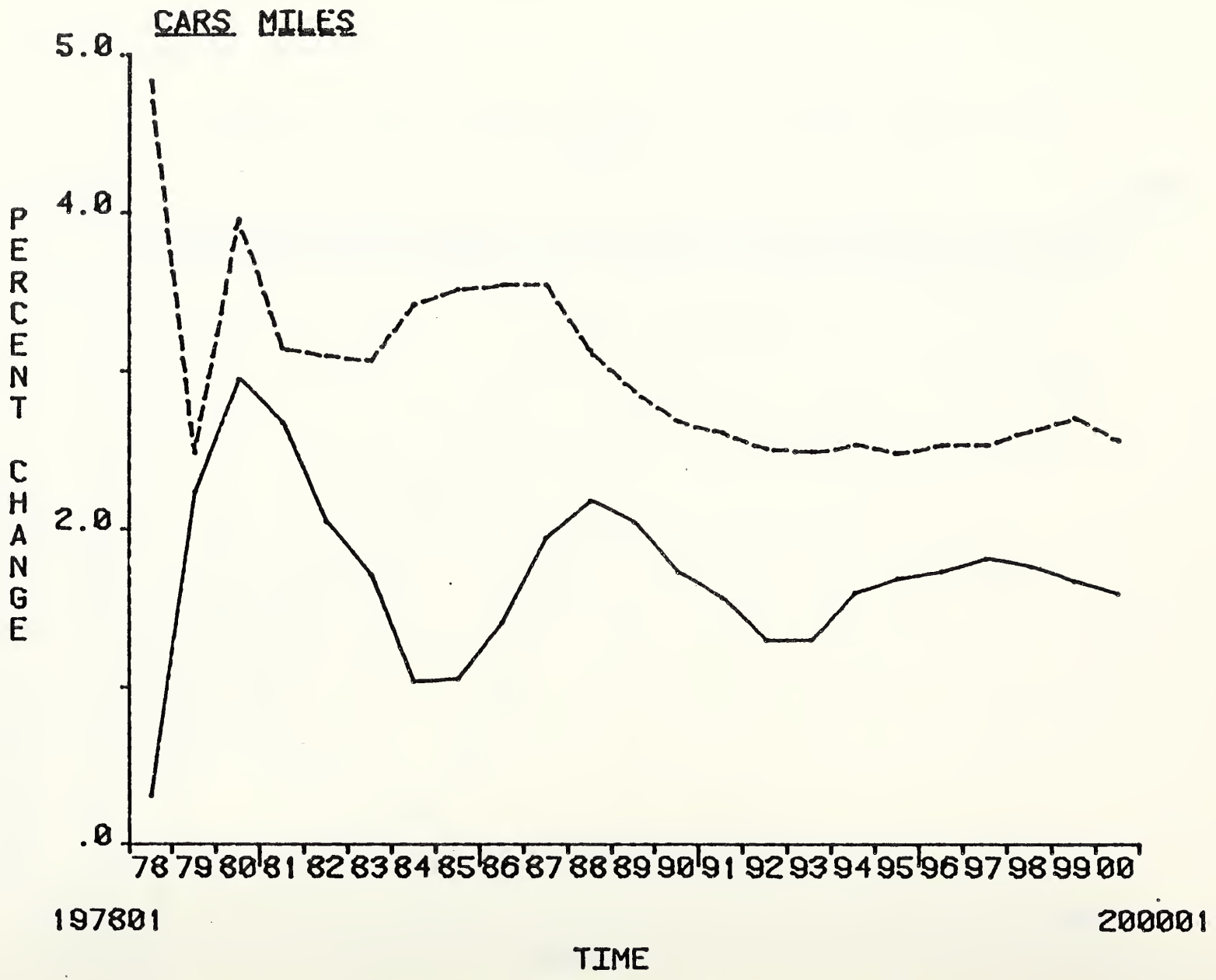

FIGURE 5-4. CARS IN OPERATION AND VEHICLE MILES--PERCENT CHANGE

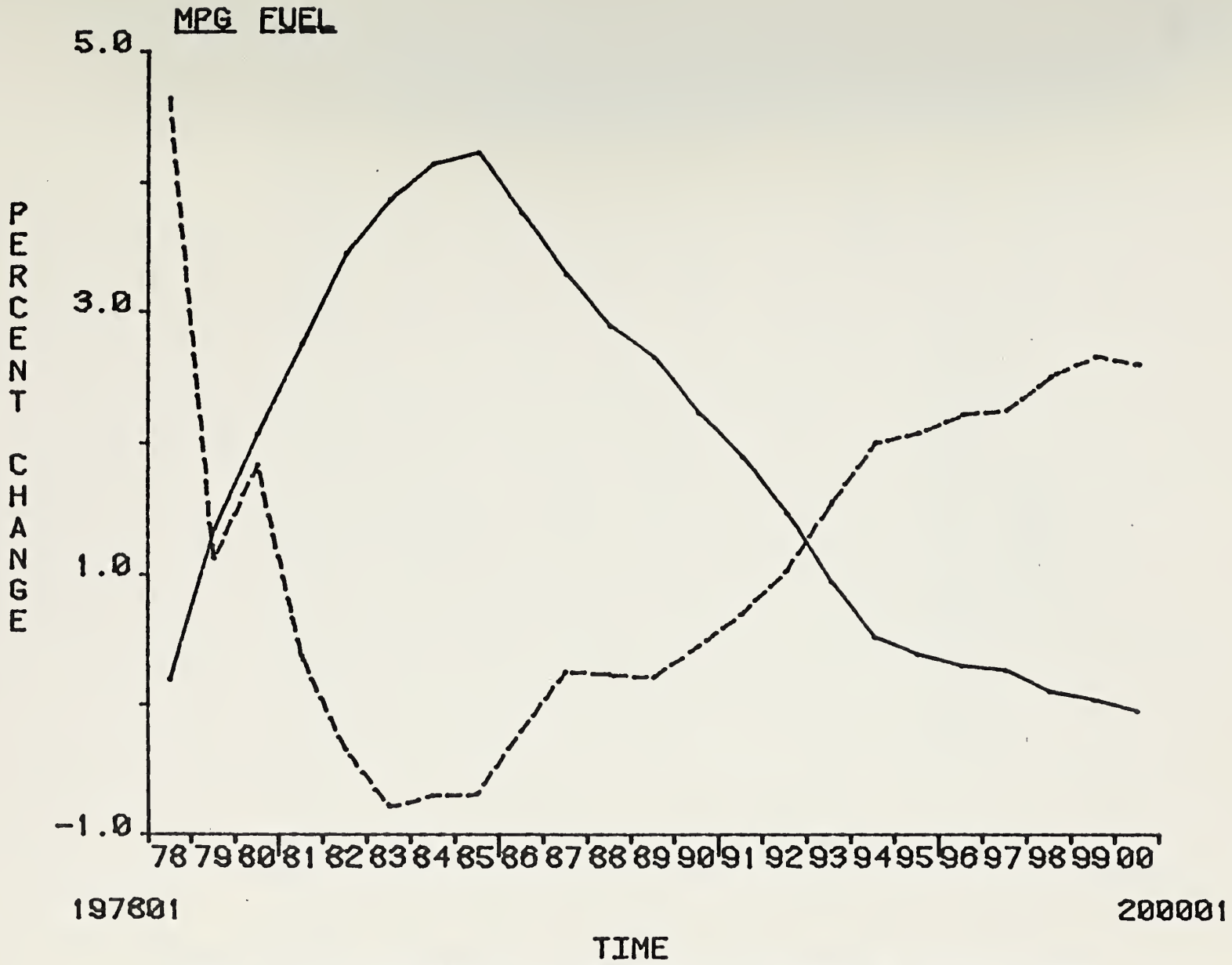

FIGURE 5-5. FLEET AVERAGE FUEL ECONOMY AND FUEL CONSUMPTION--PERCENT CHANGE

APPENDIX A

MARCH 1979 CONTROL FORECAST TO 2000

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TABLE 1.00 SELECTED MARKET INDICATORS

LINE	ITEM		1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	CARS IN OPERATION: YR-END	MILL AUTOS	101.613	104.605	107.403	109.601	111.479	112.634	113.823	115.429	117.678	120.243	122.707
2		%GROWTH	2.2	2.9	2.7	2.0	1.7	1.0	1.1	1.4	1.9	2.2	2.0
3													
4	NEW CAR RETAIL SALES	MILL AUTOS	10.853	10.411	10.499	11.022	11.272	11.549	12.255	12.640	12.697	12.470	12.512
5		%GROWTH	-2.5	-4.1	0.8	5.0	2.3	2.5	6.1	3.1	0.4	-1.8	0.3
6													
7	TOTAL NEW CAR REGISTRATIONS	MILL AUTOS	10.607	10.172	10.258	10.775	11.021	11.293	11.988	12.364	12.416	12.189	12.227
8		%GROWTH	-2.6	-4.1	0.8	5.0	2.3	2.5	6.2	3.1	0.4	-1.8	0.3
9													
10	DOMESTIC	MILL AUTOS	8.830	8.456	8.531	8.998	9.226	9.451	10.054	10.318	10.298	10.041	10.014
11		%GROWTH	-1.4	-4.2	0.9	5.5	2.5	2.4	6.4	2.6	-0.2	-2.5	-0.3
12	FOREIGN	MILL AUTOS	1.777	1.716	1.728	1.777	1.795	1.842	1.934	2.047	2.118	2.147	2.212
13		%GROWTH	-8.5	-3.4	0.7	2.9	1.0	2.6	5.0	5.8	3.5	1.4	3.0
14													
15	% FOREIGN		16.75	16.87	16.84	16.50	16.29	16.31	16.14	16.55	17.06	17.62	18.09
16		%GROWTH	-6.0	0.7	-0.2	-2.1	-1.3	0.1	-1.1	2.6	3.1	3.3	2.7
17	% SMALL CARS (SUB + COMP)		46.68	46.76	46.67	46.22	45.93	45.90	45.77	45.82	46.21	46.84	47.35
18		%GROWTH	-1.7	0.2	-0.2	-1.0	-0.6	-0.1	-0.3	0.1	0.9	1.4	1.1
19													
20	TOTAL AUTOS SCRAPPED	MILL AUTOS	8.389	7.180	7.461	8.576	9.144	10.138	10.800	10.758	10.167	9.624	9.763
21		%GROWTH	-20.8	-14.4	3.9	15.0	6.6	10.9	6.5	-0.4	-5.5	-5.3	1.5
22													
23	VEHICLE MILES TRAVELLED	BILL MILES	1215.55	1263.61	1303.27	1343.52	1384.62	1431.89	1482.20	1534.72	1589.19	1638.92	1685.99
24		%GROWTH	2.5	4.0	3.1	3.1	3.1	3.4	3.5	3.5	3.5	3.1	2.9
25													
26	TOTAL FLEET MPG (WEFA EST.)		13.94	14.23	14.62	15.13	15.71	16.36	17.05	17.69	18.28	18.80	19.30
27		%GROWTH	1.4	2.1	2.8	3.5	3.9	4.1	4.2	3.8	3.3	2.9	2.7
28													
29	AUTO MOTOR FUEL CONSUMPTION	BILL GAL	87.20	88.80	89.13	88.81	88.12	87.51	86.92	86.74	86.96	87.16	87.34
30		%GROWTH	1.1	1.8	0.4	-0.4	-0.8	-0.7	-0.7	-0.2	0.3	0.2	0.2
31	AUTO MOTOR FUEL EXPENDITURES	BILL 72 $	29.31	30.36	30.86	30.93	30.86	30.82	30.79	30.90	31.15	31.39	31.63
32		%GROWTH	3.5	4.3	1.0	0.2	-0.2	-0.1	-0.1	0.4	0.8	0.8	0.8
33													
34	NEW CAR FLEET MPG (EPA EST.)		20.38	21.46	22.82	24.67	26.58	27.64	28.04	28.04	28.06	28.09	28.11
35		%GROWTH	5.7	5.3	6.4	8.1	7.8	4.0	1.5	-0.0	0.1	0.1	0.1
36													
37	DOMESTIC		19.57	20.66	22.04	23.99	26.05	27.09	27.51	27.48	27.48	27.49	27.49
38		%GROWTH	6.6	5.6	6.7	8.8	8.6	4.0	1.5	-0.1	-0.0	0.0	0.0
39	FOREIGN		25.69	26.52	27.65	28.80	29.69	30.89	31.22	31.24	31.28	31.29	31.31
40		%GROWTH	2.2	3.2	4.3	4.2	3.1	4.0	1.1	0.1	0.1	0.0	0.1
41													
42	AVERAGE NEW CAR PURCHASE COST	DOLLARS	7366.	7889.	8503.	9100.	9737.	10396.	11050.	11710.	12376.	13054.	13740.
43		%GROWTH	7.8	7.1	7.8	7.0	7.0	6.8	6.3	6.0	5.7	5.5	5.3
44	NEW CAR EXPENDITURES	BILL 72 $	33.13	31.22	31.42	33.79	35.45	37.17	40.09	41.90	42.49	42.15	42.73
45		%GROWTH	-7.2	-5.8	0.6	7.5	4.9	4.9	7.9	4.5	1.4	-0.8	1.4
46													
47	AVG CAP. COST PER MILE	CENTS/MILE	27.27	29.07	31.17	33.27	35.34	37.64	40.06	42.61	45.25	47.97	50.81
48		%GROWTH	8.2	6.6	7.2	6.7	6.2	6.5	6.4	6.4	6.2	6.0	5.9
49													
50	AVG USED CAR WHOLESALE PRICE	DOLLARS	3428.	3714.	4013.	4321.	4653.	5001.	5356.	5726.	6107.	6483.	6844.
51		%GROWTH	10.5	8.3	8.1	7.7	7.7	7.5	7.1	6.9	6.6	6.2	5.6
52	TOTAL USED CAR PURCHASES	MILL AUTOS	15.817	17.004	17.955	18.009	17.589	17.840	18.239	18.050	18.442	19.205	20.060
53		%GROWTH	8.3	7.5	5.6	0.3	-2.3	1.4	2.2	-1.0	2.2	4.1	4.4

TABLE 1.00 SELECTED MARKET INDICATORS

LINE	ITEM		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	CARS IN OPERATION, YR-END	MILL AUTOS	124.821	126.773	128.422	130.093	132.177	134.413	136.743	139.226	141.683	144.049	146.347
2		%GROWTH	1.7	1.6	1.3	1.3	1.6	1.7	1.7	1.8	1.8	1.7	1.6
3													
4	NEW CAR RETAIL SALES	MILL AUTOS	12.565	12.931	13.426	13.928	14.056	14.266	14.368	14.699	14.946	15.235	15.507
5		%GROWTH	0.4	2.9	3.8	3.7	0.9	1.5	0.7	2.3	1.7	1.9	1.8
6													
7	TOTAL NEW CAR REGISTRATIONS	MILL AUTOS	12.275	12.631	13.113	13.603	13.727	13.930	14.028	14.350	14.590	14.872	15.138
8		%GROWTH	0.4	2.9	3.8	3.7	0.9	1.5	0.7	2.3	1.7	1.9	1.8
9													
10	DOMESTIC	MILL AUTOS	9.992	10.236	10.582	10.948	11.012	11.149	11.203	11.412	11.585	11.806	12.017
11		%GROWTH	-0.2	2.4	3.4	3.5	0.6	1.2	0.5	1.9	1.5	1.9	1.8
12	FOREIGN	MILL AUTOS	2.284	2.396	2.531	2.655	2.715	2.781	2.826	2.938	3.005	3.066	3.121
13		%GROWTH	3.2	4.9	5.6	4.9	2.2	2.4	1.6	4.0	2.3	2.0	1.8
14													
15	% FOREIGN		18.60	18.97	19.30	19.52	19.78	19.96	20.14	20.48	20.60	20.62	20.62
16		%GROWTH	2.8	1.9	1.8	1.1	1.3	0.9	0.9	1.7	0.6	0.1	0.0
17	% SMALL CARS (SUB + COMP)		47.88	48.19	48.43	48.58	48.91	49.22	49.60	49.98	50.18	50.34	50.46
18		%GROWTH	1.1	0.6	0.5	0.3	0.7	0.6	0.8	0.8	0.4	0.3	0.2
19													
20	TOTAL AUTOS SCRAPPED	MILL AUTOS	10.161	10.680	11.464	11.933	11.643	11.693	11.699	11.866	12.134	12.506	12.841
21		%GROWTH	4.1	5.1	7.3	4.1	-2.4	0.4	0.1	1.4	2.3	3.1	2.7
22													
23	VEHICLE MILES TRAVELLED	BILL MILES	1731.25	1776.38	1820.88	1866.28	1913.69	1961.17	2010.89	2061.91	2116.08	2173.48	2229.19
24		%GROWTH	2.7	2.6	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.7	2.6
25													
26	TOTAL FLEET MPG (WEFA EST.)		19.73	20.11	20.40	20.59	20.70	20.78	20.84	20.90	20.92	20.93	20.92
27		%GROWTH	2.2	1.9	1.5	0.9	0.5	0.4	0.3	0.3	0.1	0.0	-0.1
28													
29	AUTO MOTOR FUEL CONSUMPTION	BILL GAL	87.73	88.35	89.26	90.63	92.45	94.38	96.48	98.67	101.16	103.86	106.58
30		%GROWTH	0.4	0.7	1.0	1.5	2.0	2.1	2.2	2.3	2.5	2.7	2.6
31	AUTO MOTOR FUEL EXPENDITURES	BILL 72 $	31.95	32.18	32.51	33.01	33.67	34.37	35.14	35.93	36.84	37.83	38.82
32		%GROWTH	1.0	0.7	1.0	1.5	2.0	2.1	2.2	2.3	2.5	2.7	2.6
33													
34	NEW CAR FLEET MPG (EPA EST.)		28.14	28.16	28.17	28.18	28.19	28.21	28.23	28.25	28.26	28.27	28.27
35		%GROWTH	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0
36													
37	DOMESTIC		27.51	27.51	27.51	27.50	27.50	27.51	27.52	27.53	27.54	27.55	27.54
38		%GROWTH	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0
39	FOREIGN		31.30	31.31	31.32	31.34	31.37	31.39	31.41	31.41	31.42	31.43	31.45
40		%GROWTH	-0.0	0.0	0.0	0.1	0.1	0.1	0.1	-0.0	0.0	0.0	0.1
41													
42	AVERAGE NEW CAR PURCHASE COST	DOLLARS	14476.	15253.	16082.	16930.	17831.	18760.	19730.	20747.	21821.	22933.	24103.
43		%GROWTH	5.4	5.4	5.4	5.3	5.3	5.2	5.2	5.2	5.2	5.1	5.1
44	NEW CAR EXPENDITURES	BILL 72 $	43.39	45.38	47.91	50.55	51.77	53.33	54.71	56.85	58.74	60.87	63.00
45		%GROWTH	1.5	4.6	5.6	5.5	2.4	3.0	2.6	3.9	3.3	3.6	3.5
46													
47	AVG CAP. COST PER MILE	CENTS/MILE	53.74	56.89	60.20	63.68	67.36	71.23	75.36	79.52	83.94	88.63	93.62
48		%GROWTH	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.5	5.6	5.6	5.6
49													
50	AVG USED CAR WHOLESALE PRICE	DOLLARS	7222.	7634.	8095.	8603.	9147.	9704.	10276.	10855.	11478.	12127.	12822.
51		%GROWTH	5.5	5.7	6.0	6.3	6.3	6.1	5.9	5.6	5.7	5.7	5.7
52	TOTAL USED CAR PURCHASES	MILL AUTOS	20.293	20.557	20.566	20.590	20.788	21.490	21.933	22.446	22.671	23.038	23.406
53		%GROWTH	1.2	1.3	0.0	0.1	1.0	3.4	2.1	2.3	1.0	1.6	1.6

TABLE 2.00 NEW REGISTRATIONS (MILL AUTOS)

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	TOTAL NEW REGISTRATIONS	10.607	10.172	10.258	10.775	11.021	11.293	11.988	12.364	12.416	12.189	12.227
2												
3	SUBCOMPACT	2.666	2.561	2.575	2.661	2.695	2.757	2.918	3.026	3.079	3.074	3.126
4	%SHARE	25.13	25.18	25.11	24.69	24.45	24.41	24.34	24.48	24.80	25.22	25.57
5	COMPACT	2.286	2.195	2.212	2.320	2.367	2.427	2.569	2.639	2.658	2.635	2.663
6	%SHARE	21.55	21.58	21.56	21.53	21.48	21.49	21.43	21.34	21.41	21.62	21.78
7	MID-SIZE	2.695	2.604	2.622	2.778	2.853	2.912	3.095	3.182	3.197	3.143	3.159
8	%SHARE	25.40	25.60	25.56	25.78	25.89	25.78	25.82	25.74	25.75	25.79	25.83
9	FULL SIZE	1.952	1.855	1.887	2.013	2.085	2.146	2.260	2.315	2.256	2.115	2.036
10	%SHARE	18.40	18.24	18.39	18.68	18.92	19.00	18.85	18.73	18.17	17.35	16.65
11	LUXURY	1.010	0.957	0.962	1.004	1.020	1.052	1.147	1.202	1.224	1.222	1.242
12	%SHARE	9.52	9.41	9.38	9.32	9.26	9.31	9.57	9.72	9.86	10.02	10.16

MARCH CONTROL FORECAST TO 2000

TABLE 2.10 TOTAL DOMESTIC NEW REGISTRATIONS (MILL AUTOS)

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	TOTAL DOMESTIC NEW REGISTRATIONS	8.830	8.456	8.531	8.998	9.226	9.451	10.054	10.318	10.298	10.041	10.014
2												
3	SUBCOMPACTS	1.071	1.017	1.018	1.054	1.071	1.087	1.168	1.166	1.144	1.108	1.095
4	%SHARE	12.12	12.02	11.93	11.72	11.60	11.50	11.61	11.30	11.11	11.03	10.94
5	COMPACT	2.192	2.106	2.128	2.239	2.291	2.354	2.500	2.573	2.496	2.576	2.607
6	%SHARE	24.82	24.91	24.94	24.89	24.83	24.91	24.87	24.94	25.21	25.66	26.03
7	MID-SIZE	2.695	2.604	2.622	2.778	2.853	2.912	3.095	3.182	3.197	3.143	3.159
8	%SHARE	30.52	30.79	30.73	30.88	30.93	30.81	30.79	30.84	31.05	31.31	31.54
9	FULL SIZE	1.952	1.855	1.887	2.013	2.085	2.146	2.260	2.315	2.256	2.115	2.036
10	%SHARE	22.10	21.94	22.12	22.37	22.60	22.70	22.47	22.44	21.91	21.06	20.33
11	LUXURY	0.921	0.874	0.877	0.913	0.926	0.953	1.032	1.081	1.103	1.099	1.117
12	%SHARE	10.43	10.33	10.28	10.14	10.03	10.08	10.26	10.47	10.71	10.95	11.16

MARCH CONTROL FORECAST TO 2000

TABLE 2.20 FOREIGN NEW REGISTRATIONS (MILL AUTOS)

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	TOTAL FOREIGN NEW REGISTRATIONS	1.777	1.716	1.728	1.777	1.795	1.842	1.934	2.047	2.118	2.147	2.212
2												
3	SUBCOMPACT	1.595	1.544	1.558	1.606	1.624	1.670	1.750	1.860	1.935	1.966	2.031
4	%SHARE	89.77	89.97	90.18	90.37	90.48	90.69	90.48	90.89	91.36	91.54	91.82
5	COMPACT	0.093	0.089	0.084	0.080	0.076	0.072	0.069	0.065	0.062	0.059	0.056
6	%SHARE	5.26	5.17	4.88	4.51	4.24	3.93	3.55	3.19	2.93	2.74	2.53
7	LUXURY	0.088	0.083	0.085	0.091	0.095	0.099	0.115	0.121	0.121	0.123	0.125
8	%SHARE	4.97	4.86	4.94	5.12	5.28	5.38	5.97	5.92	5.71	5.71	5.65
9												
10	FOREIGN MARKET SHARES: % OF TOTAL	16.75	16.87	16.84	16.50	16.29	16.31	16.14	16.55	17.06	17.62	18.09
11	% OF SUBCOMPACT	59.84	60.30	60.49	60.37	60.28	60.58	59.98	61.47	62.84	63.96	64.97
12	% OF COMPACT	4.09	4.04	3.81	3.45	3.22	2.98	2.67	2.47	2.33	2.24	2.10
13	% OF LUXURY	8.76	8.71	8.87	9.07	9.28	9.42	10.07	10.08	9.88	10.04	10.06

TABLE 2.00 NEW REGISTRATIONS (MILL AUTOS)

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
11	TOTAL NEW REGISTRATIONS	12,275	12,631	13,113	13,603	13,727	13,930	14,028	14,350	14,590	14,872	15,138
21												
31	SUBCOMPACT	3,193	3,320	3,482	3,630	3,693	3,776	3,836	3,977	4,065	4,155	4,228
41	%SHARE	26.01	26.28	26.55	26.68	26.90	27.11	27.34	27.71	27.86	27.94	27.93
51	COMPACT	2,685	2,767	2,869	2,979	3,021	3,080	3,123	3,195	3,257	3,331	3,411
61	%SHARE	21.87	21.91	21.88	21.90	22.01	22.11	22.26	22.26	22.32	22.40	22.53
71	MID-SIZE	3,167	3,262	3,383	3,517	3,554	3,613	3,643	3,725	3,791	3,870	3,950
81	%SHARE	25.80	25.82	25.80	25.85	25.89	25.94	25.97	25.96	25.98	26.02	26.09
91	FULL SIZE	1,964	1,965	1,995	2,032	1,988	1,956	1,900	1,873	1,858	1,853	1,849
101	%SHARE	16.00	15.56	15.21	14.94	14.49	14.04	13.54	13.05	12.74	12.46	12.21
111	LUXURY	1,267	1,318	1,384	1,446	1,470	1,505	1,527	1,580	1,619	1,664	1,701
121	%SHARE	10.32	10.43	10.55	10.63	10.71	10.80	10.89	11.01	11.10	11.19	11.23

MARCH CONTROL FORECAST TO 2000

TABLE 2.10 TOTAL DOMESTIC NEW REGISTRATIONS (MILL AUTOS)

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
11	TOTAL DOMESTIC NEW REGISTRATIONS	9,992	10,236	10,582	10,948	11,012	11,149	11,203	11,412	11,585	11,806	12,017
21												
31	SUBCOMPACTS	1,096	1,116	1,151	1,175	1,173	1,187	1,198	1,234	1,256	1,285	1,297
41	%SHARE	10.97	10.90	10.88	10.73	10.65	10.64	10.69	10.81	10.84	10.88	10.79
51	COMPACT	2,632	2,717	2,821	2,934	2,978	3,039	3,083	3,158	3,221	3,298	3,379
61	%SHARE	26.34	26.54	26.66	26.79	27.04	27.26	27.52	27.67	27.81	27.93	28.12
71	MID-SIZE	3,167	3,262	3,383	3,517	3,554	3,613	3,643	3,725	3,791	3,870	3,950
81	%SHARE	31.70	31.86	31.97	32.12	32.28	32.41	32.52	32.64	32.72	32.78	32.87
91	FULL SIZE	1,964	1,965	1,995	2,032	1,988	1,956	1,900	1,873	1,858	1,853	1,849
101	%SHARE	19.65	19.20	18.85	18.56	18.06	17.54	16.96	16.42	16.04	15.69	15.38
111	LUXURY	1,133	1,177	1,231	1,292	1,319	1,354	1,378	1,422	1,458	1,501	1,543
121	%SHARE	11.34	11.49	11.64	11.80	11.98	12.15	12.30	12.46	12.59	12.71	12.84

MARCH CONTROL FORECAST TO 2000

TABLE 2.20 FOREIGN NEW REGISTRATIONS (MILL AUTOS)

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
11	TOTAL FOREIGN NEW REGISTRATIONS	2,284	2,396	2,531	2,655	2,715	2,781	2,826	2,938	3,005	3,066	3,121
21												
31	SUBCOMPACT	2,097	2,204	2,330	2,455	2,520	2,589	2,638	2,743	2,809	2,870	2,932
41	%SHARE	91.81	91.99	92.07	92.45	92.83	93.12	93.36	93.34	93.47	93.61	93.93
51	COMPACT	0.053	0.051	0.048	0.046	0.043	0.041	0.039	0.037	0.035	0.034	0.032
61	%SHARE	2.33	2.11	1.90	1.72	1.60	1.48	1.38	1.26	1.17	1.09	1.02
71	LUXURY	0.134	0.141	0.153	0.155	0.151	0.150	0.149	0.159	0.161	0.162	0.158
81	%SHARE	5.86	5.90	6.03	5.83	5.57	5.40	5.26	5.39	5.36	5.30	5.05
91												
101	FOREIGN MARKET SHARES: % OF TOTAL	18.60	18.97	19.30	19.52	19.78	19.96	20.14	20.48	20.60	20.62	20.62
111	% OF SUBCOMPACT	65.67	66.39	66.93	67.63	68.25	68.57	68.78	68.97	69.10	69.08	69.34
121	% OF COMPACT	1.98	1.83	1.67	1.53	1.43	1.34	1.25	1.16	1.08	1.01	0.93
131	% OF LUXURY	10.57	10.73	11.03	10.71	10.29	9.98	9.74	10.03	9.94	9.77	9.27

TABLE 3.00 GROWTH RATES, NEW REGISTRATIONS

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	TOTAL NEW REGISTRATIONS	-2.6	-4.1	0.8	5.0	2.3	2.5	6.2	3.1	0.4	-1.8	0.3
2												
3	SUBCOMPACT	-7.6	-3.9	0.6	3.3	1.3	2.3	5.8	3.7	1.8	-0.2	1.7
4												
5	COMPACT	-0.1	-4.0	0.8	4.9	2.0	2.5	5.9	2.7	0.7	-0.9	1.0
6												
7	MID-SIZE	-2.6	-3.4	0.7	6.0	2.7	2.0	6.3	2.8	0.5	-1.7	0.5
8												
9	FULL SIZE	2.5	-5.0	1.7	6.7	3.6	2.9	5.3	2.5	-2.5	-6.3	-3.7
10												
11	LUXURY	-3.8	-5.2	0.5	4.3	1.6	3.1	9.1	4.8	1.9	-0.2	1.7

MARCH CONTROL FORECAST TO 2000

TABLE 3.10 GROWTH RATES, DOMESTIC NEW REGISTRATIONS

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	TOTAL DOMESTIC NEW REGISTRATIONS	-1.4	-4.2	0.9	5.5	2.5	2.4	6.4	2.6	-0.2	-2.5	-0.3
2												
3	SUBCOMPACTS	-7.6	-5.0	0.1	3.6	1.5	1.5	7.4	0.1	-1.9	-3.2	-1.2
4												
5	COMPACT	0.2	-3.9	1.0	5.3	2.3	2.8	6.2	2.9	0.9	-0.8	1.2
6												
7	MID-SIZE	-2.6	-3.4	0.7	6.0	2.7	2.0	6.3	2.8	0.5	-1.7	0.5
8												
9	FULL SIZE	2.5	-5.0	1.7	6.7	3.6	2.9	5.3	2.5	-2.5	-6.3	-3.7
10												
11	LUXURY	-1.1	-5.1	0.4	4.1	1.4	2.9	8.3	4.8	2.1	-0.4	1.7

MARCH CONTROL FORECAST TO 2000

TABLE 3.20 GROWTH RATES, FOREIGN NEW REGISTRATIONS

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	TOTAL FOREIGN NEW REGISTRATIONS	-8.5	-3.4	0.7	2.9	1.0	2.6	5.0	5.8	3.5	1.4	3.0
2												
3	SUBCOMPACT	-7.6	-3.2	0.9	3.1	1.1	2.8	4.8	6.3	4.0	1.6	3.3
4												
5	COMPACT	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0
6												
7	LUXURY	-24.6	-5.7	2.4	6.7	4.0	4.7	16.5	4.8	-0.2	1.5	1.9

TABLE 3.00 GROWTH RATES, NEW REGISTRATIONS

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	TOTAL NEW REGISTRATIONS	0.4	2.9	3.8	3.7	0.9	1.5	0.7	2.3	1.7	1.9	1.8
2												
3	SUBCOMPACT	2.1	4.0	4.9	4.2	1.7	2.3	1.6	3.7	2.2	2.2	1.8
4												
5	COMPACT	0.8	3.1	3.7	3.8	1.4	2.0	1.4	2.3	1.9	2.3	2.4
6												
7	MID-SIZE	0.3	3.0	3.7	3.9	1.1	1.7	0.8	2.2	1.8	2.1	2.1
8												
9	FULL SIZE	-3.6	0.1	1.5	1.8	-2.1	-1.6	-2.9	-1.4	-0.8	-0.3	-0.2
10												
11	LUXURY	1.9	4.0	5.0	4.5	1.6	2.3	1.5	3.5	2.5	2.7	2.2

MARCH CONTROL FORECAST TO 2000

TABLE 3.10 GROWTH RATES, DOMESTIC NEW REGISTRATIONS

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	TOTAL DOMESTIC NEW REGISTRATIONS	-0.2	2.4	3.4	3.5	0.6	1.2	0.5	1.9	1.5	1.9	1.8
2												
3	SUBCOMPACTS	0.1	1.8	3.2	2.0	-0.2	1.2	0.9	3.0	1.8	2.3	0.9
4												
5	COMPACT	1.0	3.2	3.8	4.0	1.5	2.1	1.5	2.4	2.0	2.4	2.5
6												
7	MID-SIZE	0.3	3.0	3.7	3.9	1.1	1.7	0.8	2.2	1.8	2.1	2.1
8												
9	FULL SIZE	-3.6	0.1	1.5	1.8	-2.1	-1.6	-2.9	-1.4	-0.8	-0.3	-0.2
10												
11	LUXURY	1.4	3.9	4.7	4.9	2.1	2.7	1.8	3.2	2.6	2.9	2.8

MARCH CONTROL FORECAST TO 2000

TABLE 3.20 GROWTH RATES, FOREIGN NEW REGISTRATIONS

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	TOTAL FOREIGN NEW REGISTRATIONS	3.2	4.9	5.6	4.9	2.2	2.4	1.6	4.0	2.3	2.0	1.8
2												
3	SUBCOMPACT	3.2	5.1	5.7	5.3	2.7	2.7	1.9	4.0	2.4	2.2	2.1
4												
5	COMPACT	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0
6												
7	LUXURY	7.1	5.6	8.0	1.4	-2.4	-0.7	-1.0	6.6	1.6	0.9	-3.0

TABLE 4.00 PASSENGER CARS IN OPERATION: YEAR-END (MILL AUTOS)

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
11	TOTAL CARS IN OPERATION YEAR-END	101,613	104,605	107,403	109,601	111,479	112,634	113,823	115,429	117,678	120,243	122,707
21												
31	SUBCOMPACT	22,146	23,579	24,857	25,889	26,728	27,301	27,782	28,306	28,966	29,711	30,458
41	%SHARE	21.79	22.54	23.14	23.62	23.98	24.24	24.41	24.52	24.61	24.71	24.82
51	COMPACT	20,203	21,110	21,951	22,668	23,283	23,723	24,115	24,543	25,087	25,702	26,308
61	%SHARE	19.88	20.18	20.44	20.68	20.89	21.06	21.19	21.26	21.32	21.38	21.44
71	MID-SIZE	24,588	25,518	26,419	27,219	27,935	28,436	28,918	29,448	30,098	30,817	31,500
81	%SHARE	24.20	24.39	24.60	24.83	25.06	25.25	25.41	25.51	25.58	25.63	25.67
91	FULL SIZE	25,127	24,529	24,015	23,446	22,978	22,511	22,213	22,153	22,296	22,481	22,598
101	%SHARE	24.73	23.45	22.36	21.39	20.61	19.99	19.51	19.19	18.95	18.70	18.42
111	LUXURY	9,549	9,870	10,161	10,379	10,554	10,662	10,796	10,978	11,231	11,532	11,842
121	%SHARE	9.40	9.44	9.46	9.47	9.47	9.47	9.48	9.51	9.54	9.59	9.65

MARCH CONTROL FORECAST TO 2000

TABLE 4.10 DOMESTIC CARS IN OPERATION: YEAR-END (MILL AUTOS)

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
11	DOMESTIC CARS IN OPERATION	86,287	88,445	90,487	92,081	93,462	94,275	95,182	96,430	98,197	100,189	102,049
21												
31	SUBCOMPACTS	8,696	9,362	9,934	10,388	10,739	10,952	11,129	11,276	11,444	11,620	11,769
41	%SHARE	10.08	10.59	10.98	11.28	11.49	11.62	11.69	11.69	11.65	11.60	11.53
51	COMPACTS	19,203	20,081	20,903	21,619	22,248	22,718	23,151	23,622	24,203	24,850	25,487
61	%SHARE	22.26	22.70	23.10	23.48	23.80	24.10	24.32	24.50	24.65	24.80	24.98
71	MID-SIZE	24,588	25,518	26,419	27,219	27,935	28,436	28,918	29,448	30,098	30,817	31,500
81	%SHARE	28.50	28.85	29.20	29.56	29.89	30.16	30.38	30.54	30.65	30.76	30.87
91	FULL SIZE	25,127	24,529	24,015	23,446	22,978	22,511	22,213	22,153	22,296	22,481	22,998
101	%SHARE	29.12	27.73	26.54	25.46	24.59	23.88	23.34	22.97	22.71	22.44	22.14
111	LUXURY	8,671	8,956	9,215	9,408	9,563	9,658	9,772	9,930	10,159	10,421	10,695
121	%SHARE	10.05	10.13	10.18	10.22	10.23	10.24	10.27	10.30	10.34	10.40	10.48

MARCH CONTROL FORECAST TO 2000

TABLE 4.20 FOREIGN CARS IN OPERATION: YEAR-END (MILL AUTOS)

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
11	FOREIGN CARS IN OPERATION	15,327	16,160	16,916	17,520	18,016	18,359	18,641	18,999	19,481	20,054	20,658
21												
31	SUBCOMPACTS	13,450	14,217	14,922	15,501	15,989	16,349	16,653	17,031	17,522	18,091	18,690
41	%SHARE	87.75	87.98	88.21	88.47	88.73	89.05	89.34	89.64	89.94	90.21	90.47
51	COMPACTS	0,998	1,029	1,048	1,049	1,036	1,006	0,964	0,921	0,884	0,853	0,821
61	%SHARE	6.51	6.37	6.20	5.98	5.75	5.48	5.17	4.85	4.54	4.25	3.98
71	LUXURY	0,879	0,914	0,946	0,971	0,991	1,004	1,024	1,048	1,076	1,110	1,147
81	%SHARE	5.73	5.66	5.59	5.54	5.50	5.47	5.49	5.52	5.52	5.54	5.55
91												
101	FOREIGN SHARES: % OF TOTAL	15.08	15.48	15.75	15.99	16.16	16.30	16.38	16.46	16.55	16.68	16.84
111	% OF SUBCOMPACT	60.73	60.30	60.03	59.87	59.82	59.89	59.94	60.17	60.49	60.89	61.36
121	% OF COMPACT	4.94	4.87	4.77	4.63	4.45	4.24	4.00	3.75	3.52	3.32	3.12
131	% OF LUXURY	9.20	9.26	9.31	9.35	9.39	9.42	9.48	9.55	9.58	9.63	9.69

TABLE 4.00 PASSENGER CARS IN OPERATION: YEAR-END (MILL AUTOS)

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	TOTAL CARS IN OPERATION YEAR-END	124.821	126.773	128.422	130.093	132.177	134.413	136.743	139.226	141.683	144.049	146.347
2												
3	SUBCOMPACT	31.162	31.844	32.481	33.151	33.949	34.807	35.706	36.698	37.683	38.633	39.543
4	%SHARE	24.97	25.12	25.29	25.48	25.68	25.90	26.11	26.36	26.60	26.82	27.02
5	COMPACT	26.837	27.323	27.749	28.179	28.704	29.266	29.865	30.494	31.127	31.744	32.359
6	%SHARE	21.50	21.55	21.61	21.66	21.72	21.77	21.84	21.90	21.97	22.04	22.11
7	MID-SIZE	32.088	32.628	33.088	33.548	34.113	34.714	35.342	36.001	36.659	37.303	37.939
8	%SHARE	25.71	25.74	25.76	25.79	25.81	25.83	25.85	25.86	25.87	25.90	25.92
9	FULL SIZE	22.596	22.536	22.372	22.176	22.020	21.863	21.682	21.479	21.255	21.010	20.760
10	%SHARE	18.10	17.78	17.42	17.05	16.66	16.27	15.86	15.43	15.00	14.59	14.19
11	LUXURY	12.139	12.442	12.733	13.038	13.389	13.764	14.146	14.554	14.998	15.358	15.746
12	%SHARE	9.72	9.81	9.91	10.02	10.13	10.24	10.35	10.45	10.56	10.66	10.76

MARCH CONTROL FORECAST TO 2000

TABLE 4.10 DOMESTIC CARS IN OPERATION: YEAR-END (MILL AUTOS)

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	DOMESTIC CARS IN OPERATION	103.961	104.895	105.925	106.932	108.255	109.691	111.202	112.806	114.407	115.961	117.490
2												
3	SUBCOMPACTS	11.878	11.952	11.977	11.989	12.034	12.096	12.182	12.308	12.449	12.593	12.732
4	%SHARE	11.47	11.39	11.31	11.21	11.12	11.03	10.95	10.91	10.88	10.86	10.84
5	COMPACTS	26.049	26.572	27.038	27.510	28.071	28.669	29.295	29.952	30.612	31.296	31.897
6	%SHARE	25.15	25.33	25.53	25.73	25.93	26.13	26.34	26.55	26.76	26.95	27.15
7	MID-SIZE	32.088	32.628	33.088	33.548	34.113	34.714	35.342	36.001	36.659	37.303	37.939
8	%SHARE	30.98	31.11	31.24	31.37	31.51	31.69	31.78	31.91	32.04	32.17	32.29
9	FULL SIZE	22.596	22.536	22.372	22.176	22.020	21.863	21.682	21.479	21.255	21.010	20.760
10	%SHARE	21.82	21.48	21.12	20.74	20.34	19.93	19.50	19.04	18.58	18.12	17.67
11	LUXURY	10.949	11.208	11.449	11.708	12.017	12.352	12.700	13.066	13.432	13.798	14.162
12	%SHARE	10.57	10.68	10.81	10.95	11.10	11.26	11.42	11.58	11.74	11.90	12.05

MARCH CONTROL FORECAST TO 2000

TABLE 4.20 FOREIGN CARS IN OPERATION: YEAR-END (MILL AUTOS)

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	FOREIGN CARS IN OPERATION	21.261	21.878	22.498	23.161	23.921	24.722	25.540	26.420	27.275	28.088	28.856
2												
3	SUBCOMPACTS	19.284	19.892	20.504	21.162	21.916	22.711	23.524	24.390	25.234	26.040	26.811
4	%SHARE	90.70	90.92	91.14	91.37	91.61	91.86	92.11	92.32	92.52	92.71	92.91
5	COMPACTS	0.788	0.751	0.710	0.669	0.633	0.600	0.570	0.542	0.515	0.488	0.462
6	%SHARE	3.70	3.43	3.16	2.89	2.65	2.43	2.23	2.05	1.89	1.74	1.60
7	LUXURY	1.190	1.235	1.284	1.329	1.373	1.412	1.446	1.488	1.526	1.560	1.583
8	%SHARE	5.60	5.64	5.71	5.74	5.74	5.71	5.66	5.63	5.60	5.55	5.49
9												
10	FOREIGN SHARES: % OF TOTAL	17.03	17.26	17.52	17.80	18.10	18.39	18.68	18.98	19.25	19.50	19.72
11	% OF SUBCOMPACT	61.88	62.47	63.13	63.84	64.55	65.25	65.88	66.46	66.96	67.40	67.80
12	% OF COMPACT	2.94	2.75	2.56	2.38	2.21	2.05	1.91	1.78	1.65	1.54	1.43
13	% OF LUXURY	9.80	9.92	10.08	10.20	10.25	10.26	10.22	10.22	10.20	10.16	10.06

TABLE 5.00 GROWTH RATES, CARS IN OPERATION: YEAR-END

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	TOTAL CARS IN OPERATION YEAR-END	2.2	2.9	2.7	2.0	1.7	1.0	1.1	1.4	1.9	2.2	2.0
2												
3	SUBCOMPACT	7.2	6.5	5.4	4.2	3.2	2.1	1.8	1.9	2.3	2.6	2.5
4												
5	COMPACT	4.2	4.5	4.0	3.3	2.7	1.9	1.6	1.8	2.2	2.5	2.4
6												
7	MID-SIZE	3.0	3.8	3.5	3.0	2.6	1.8	1.7	1.8	2.2	2.4	2.2
8												
9	FULL SIZE	-4.2	-2.4	-2.1	-2.4	-2.0	-2.0	-1.3	-0.3	0.6	0.8	0.5
10												
11	LUXURY	3.0	3.4	2.9	2.2	1.7	1.0	1.3	1.7	2.3	2.7	2.7

MARCH CONTROL FORECAST TO 2000

TABLE 5.10 GROWTH RATES, DOMESTIC CARS IN OPERATION: YEAR-END

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	DOMESTIC CARS IN OPERATION	1.6	2.5	2.3	1.8	1.5	0.9	1.0	1.3	1.8	2.0	1.9
2												
3	SUBCOMPACTS	9.3	7.7	6.1	4.6	3.4	2.0	1.6	1.3	1.5	1.5	1.3
4												
5	COMPACTS	4.3	4.6	4.1	3.4	2.9	2.1	1.9	2.0	2.5	2.7	2.6
6												
7	MID-SIZE	3.0	3.8	3.5	3.0	2.6	1.8	1.7	1.8	2.2	2.4	2.2
8												
9	FULL SIZE	-4.2	-2.4	-2.1	-2.4	-2.0	-2.0	-1.3	-0.3	0.6	0.8	0.5
10												
11	LUXURY	2.8	3.3	2.9	2.1	1.6	1.0	1.2	1.6	2.3	2.6	2.6

MARCH CONTROL FORECAST TO 2000

TABLE 5.20 GROWTH RATES, FOREIGN CARS IN OPERATION: YEAR-END

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	FOREIGN CARS IN OPERATION	5.7	5.4	4.7	3.6	2.8	1.9	1.5	1.9	2.5	2.9	3.0
2												
3	SUBCOMPACTS	5.9	5.7	5.0	3.9	3.2	2.3	1.9	2.3	2.9	3.2	3.3
4												
5	COMPACTS	3.3	3.0	1.9	0.0	-1.2	-2.9	-4.2	-4.4	-4.0	-3.5	-3.7
6												
7	LUXURY	4.4	4.0	3.5	2.6	2.1	1.3	2.0	2.3	2.7	3.2	3.3

TABLE 5.00 GROWTH RATES, CARS IN OPERATION: YEAR-END

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	TOTAL CARS IN OPERATION YEAR-END	1.7	1.6	1.3	1.3	1.6	1.7	1.7	1.8	1.8	1.7	1.6
2												
3	SUBCOMPACT	2.3	2.2	2.0	2.1	2.4	2.5	2.6	2.8	2.7	2.5	2.4
4												
5	COMPACT	2.0	1.8	1.6	1.6	1.9	2.0	2.0	2.1	2.1	2.0	1.9
6												
7	MID-SIZE	1.9	1.7	1.4	1.4	1.7	1.8	1.8	1.9	1.8	1.8	1.7
8												
9	FULL SIZE	-0.0	-0.3	-0.7	-0.9	-0.7	-0.7	-0.8	-0.9	-1.0	-1.2	-1.2
10												
11	LUXURY	2.5	2.5	2.3	2.4	2.7	2.8	2.8	2.9	2.8	2.7	2.5

MARCH CONTROL FORECAST TO 2000

TABLE 5.10 GROWTH RATES, DOMESTIC CARS IN OPERATION: YEAR-END

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	DOMESTIC CARS IN OPERATION	1.5	1.3	1.0	1.0	1.2	1.3	1.4	1.4	1.4	1.4	1.3
2												
3	SUBCOMPACTS	0.9	0.6	0.2	0.1	0.4	0.5	0.7	1.0	1.1	1.2	1.1
4												
5	COMPACTS	2.2	2.0	1.8	1.7	2.0	2.1	2.2	2.2	2.2	2.1	2.0
6												
7	MID-SIZE	1.9	1.7	1.4	1.4	1.7	1.8	1.8	1.9	1.8	1.8	1.7
8												
9	FULL SIZE	-0.0	-0.3	-0.7	-0.9	-0.7	-0.7	-0.8	-0.9	-1.0	-1.2	-1.2
10												
11	LUXURY	2.4	2.4	2.2	2.3	2.6	2.8	2.8	2.9	2.8	2.7	2.6

MARCH CONTROL FORECAST TO 2000

TABLE 5.20 GROWTH RATES, FOREIGN CARS IN OPERATION: YEAR-END

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	FOREIGN CARS IN OPERATION	2.9	2.9	2.8	2.9	3.3	3.3	3.3	3.4	3.2	3.0	2.7
2												
3	SUBCOMPACTS	3.2	3.2	3.1	3.2	3.6	3.6	3.6	3.7	3.5	3.2	3.0
4												
5	COMPACTS	-4.1	-4.7	-5.4	-5.8	-5.4	-5.2	-5.1	-4.9	-5.0	-5.2	-5.3
6												
7	LUXURY	3.7	3.8	4.0	3.6	3.2	2.8	2.5	2.8	2.6	2.2	1.9

TABLE 6.00 CARS IN OPERATION BY AGE: MID YEAR (MILL AUTOS)

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
11	CARS IN OPERATION: ALL VINTAGES	100.464	103.055	105.938	108.436	110.454	111.954	113.114	114.494	116.429	118.844	121.337
21												
31	LESS THAN 1 YEAR OLD	5.295	5.079	5.122	5.379	5.502	5.637	5.983	6.171	6.197	6.085	6.104
41	AGE: 1 YEAR OLD	10.841	10.566	10.136	10.221	10.733	10.976	11.243	11.934	12.310	12.365	12.140
51	AGE: 2 YEARS OLD	10.591	10.769	10.502	10.072	10.152	10.657	10.892	11.155	11.844	12.222	12.280
61	AGE: 3 YEARS OLD	9.447	10.473	10.659	10.391	9.960	10.033	10.521	10.750	11.014	11.704	12.083
71	AGE: 4 YEARS OLD	7.844	9.284	10.309	10.486	10.213	9.779	9.836	10.310	10.541	10.813	11.498
81	AGE: 5 YEARS OLD	8.021	7.642	9.067	10.059	10.219	9.936	9.494	9.541	10.011	10.254	10.530
91	AGE: 6 YEARS OLD	10.022	7.715	7.378	8.742	9.680	9.809	9.507	9.072	9.131	9.607	9.856
101	AGE: 7 YEARS OLD	8.622	9.440	7.308	6.973	8.239	9.086	9.162	8.864	8.478	8.570	9.038
111	AGE: 8 YEARS OLD	7.305	7.926	8.755	6.760	6.422	7.548	8.266	8.309	8.063	7.759	7.872
121	AGE: 9 YEARS OLD	5.395	6.503	7.138	7.852	6.028	5.682	6.612	7.213	7.283	7.128	6.893
131	AGE: 10 YEARS OLD	4.966	4.937	5.570	6.077	6.625	5.027	4.668	5.398	5.927	6.064	5.980
141	AGE: 11 YEARS OLD	3.701	3.943	3.705	4.518	4.866	5.229	3.886	3.572	4.163	4.653	4.816
151	AGE: 12 YEARS OLD	2.417	2.852	3.143	2.934	3.525	3.736	3.919	2.877	2.666	3.171	3.594
161	AGE: 13 YEARS OLD	1.926	1.845	2.257	2.472	2.271	2.684	2.779	2.872	2.125	2.012	2.428
171	AGE: 14 YEARS OLD	1.495	1.470	1.460	1.775	1.913	1.729	1.993	2.033	2.122	1.604	1.541
181	AGE: 15 YEARS OLD	0.956	1.141	1.163	1.148	1.374	1.457	1.284	1.460	1.502	1.601	1.228
191	AGE: 16 YEARS OLD	0.639	0.730	0.903	0.915	0.889	1.046	1.082	0.941	1.079	1.133	1.226
201	AGE: 17 YEARS OLD	0.413	0.487	0.577	0.710	0.708	0.677	0.777	0.793	0.695	0.814	0.868
211	AGE: 18 YEARS OLD	0.246	0.315	0.386	0.454	0.550	0.539	0.503	0.569	0.586	0.525	0.623
221	AGE: 19 YEARS OLD	0.196	0.188	0.249	0.303	0.351	0.419	0.400	0.368	0.420	0.442	0.402
231	AGE: 20 YEARS OLD	0.127	0.150	0.149	0.196	0.235	0.268	0.311	0.293	0.272	0.317	0.338

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TABLE 6.10 CARS IN OPERATION: SHARES BY AGE (PERCENT)

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
11	LESS THAN 1 YEAR OLD	5.27	4.93	4.84	4.96	4.98	5.04	5.29	5.39	5.32	5.12	5.03
21	AGE: 1 YEAR OLD	10.79	10.25	9.57	9.43	9.72	9.80	9.94	10.42	10.57	10.40	10.01
31	AGE: 2 YEARS OLD	10.54	10.45	9.91	9.29	9.19	9.52	9.63	9.74	10.17	10.28	10.12
41	AGE: 3 YEARS OLD	9.40	10.16	10.06	9.58	9.02	8.96	9.30	9.39	9.46	9.85	9.96
51	AGE: 4 YEARS OLD	7.81	9.01	9.73	9.67	9.25	8.73	8.70	9.00	9.05	9.10	9.48
61	AGE: 5 YEARS OLD	7.98	7.42	8.56	9.28	9.25	8.88	8.39	8.33	8.60	8.63	8.68
71	AGE: 6 YEARS OLD	9.98	7.49	6.96	8.06	8.76	8.76	8.40	7.92	7.84	8.08	8.12
81	AGE: 7 YEARS OLD	8.58	9.16	6.90	6.43	7.46	8.12	8.10	7.74	7.28	7.21	7.45
91	AGE: 8 YEARS OLD	7.27	7.69	8.26	6.23	5.81	6.74	7.31	7.26	6.92	6.53	6.49
101	AGE: 9 YEARS OLD	5.37	6.31	6.74	7.24	5.46	5.08	5.85	6.30	6.26	6.00	5.68
111	AGE: 10 YEARS OLD	4.94	4.40	5.26	5.60	6.00	4.49	4.13	4.71	5.09	5.10	4.93
121	AGE: 11 YEARS OLD	3.68	3.83	3.50	4.17	4.41	4.67	3.44	3.12	3.58	3.92	3.97
131	AGE: 12 YEARS OLD	2.41	2.77	2.97	2.71	3.19	3.34	3.47	2.51	2.29	2.67	2.96
141	AGE: 13 YEARS OLD	1.92	1.79	2.13	2.28	2.06	2.40	2.45	2.51	1.83	1.69	2.00
151	AGE: 14 YEARS OLD	1.49	1.43	1.38	1.64	1.73	1.54	1.76	1.78	1.82	1.35	1.27
161	AGE: 15 YEARS OLD	0.93	1.11	1.10	1.06	1.24	1.30	1.14	1.28	1.29	1.35	1.01
171	AGE: 16 YEARS OLD	0.64	0.71	0.85	0.84	0.80	0.93	0.96	0.82	0.93	0.95	1.01
181	AGE: 17 YEARS OLD	0.41	0.47	0.54	0.65	0.64	0.60	0.69	0.69	0.60	0.69	0.72
191	AGE: 18 YEARS OLD	0.25	0.31	0.36	0.42	0.50	0.48	0.44	0.50	0.50	0.44	0.51
201	AGE: 19 YEARS OLD	0.20	0.18	0.24	0.28	0.32	0.37	0.35	0.32	0.36	0.37	0.33
211	AGE: 20 YEARS OLD	0.13	0.15	0.14	0.18	0.21	0.24	0.27	0.26	0.23	0.27	0.28

TABLE 6.00 CARS IN OPERATION BY AGE: MID YEAR (MILL AUTOS)

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
11	CARS IN OPERATION: ALL VINTAGES	123,617	125,664	127,441	129,096	130,967	133,170	135,462	137,847	140,302	142,712	145,091
21												
31	LESS THAN 1 YEAR OLD	6,128	6,305	6,545	6,790	6,892	6,953	7,002	7,163	7,283	7,423	7,556
41	AGE: 1 YEAR OLD	12,178	12,225	12,577	13,055	13,543	13,667	13,870	13,969	14,289	14,527	14,807
51	AGE: 2 YEARS OLD	12,057	12,092	12,135	12,481	12,955	13,441	13,565	13,768	13,865	14,182	14,417
61	AGE: 3 YEARS OLD	12,139	11,915	11,943	11,980	12,322	12,793	13,275	13,399	13,599	13,693	14,003
71	AGE: 4 YEARS OLD	11,870	11,919	11,689	11,708	11,745	12,084	12,549	13,024	13,145	13,338	13,427
81	AGE: 5 YEARS OLD	11,195	11,549	11,583	11,346	11,366	11,407	11,740	12,195	12,656	12,770	12,952
91	AGE: 6 YEARS OLD	10,120	10,748	11,067	11,079	10,855	10,881	10,926	11,249	11,685	12,121	12,222
101	AGE: 7 YEARS OLD	9,270	9,502	10,062	10,332	10,348	10,149	10,181	10,229	10,532	10,932	11,327
111	AGE: 8 YEARS OLD	8,300	8,493	8,671	9,146	9,393	9,423	9,251	9,289	9,333	9,599	9,948
121	AGE: 9 YEARS OLD	6,991	7,347	7,475	7,589	8,009	8,243	8,281	8,141	8,174	8,200	8,417
131	AGE: 10 YEARS OLD	5,780	5,833	6,077	6,130	6,228	6,595	6,802	6,848	6,732	6,744	6,743
141	AGE: 11 YEARS OLD	4,748	4,560	4,550	4,683	4,722	4,822	5,120	5,297	5,334	5,229	5,219
151	AGE: 12 YEARS OLD	3,720	3,642	3,453	3,397	3,492	3,543	3,629	3,867	4,002	4,017	3,918
161	AGE: 13 YEARS OLD	2,753	2,829	2,733	2,553	2,507	2,595	2,641	2,715	2,895	2,986	2,982
171	AGE: 14 YEARS OLD	1,860	2,093	2,123	2,021	1,884	1,863	1,934	1,976	2,032	2,160	2,216
181	AGE: 15 YEARS OLD	1,180	1,414	1,571	1,570	1,491	1,400	1,389	1,447	1,479	1,517	1,603
191	AGE: 16 YEARS OLD	0,941	0,897	1,061	1,162	1,158	1,108	1,044	1,039	1,083	1,104	1,125
201	AGE: 17 YEARS OLD	0,939	0,715	0,673	0,785	0,857	0,861	0,826	0,781	0,778	0,808	0,819
211	AGE: 18 YEARS OLD	0,665	0,714	0,537	0,498	0,579	0,637	0,642	0,618	0,585	0,580	0,600
221	AGE: 19 YEARS OLD	0,478	0,506	0,536	0,397	0,368	0,430	0,475	0,480	0,463	0,436	0,431
231	AGE: 20 YEARS OLD	0,308	0,363	0,379	0,396	0,293	0,273	0,321	0,355	0,359	0,345	0,324

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TABLE 6.10 CARS IN OPERATION: SHARES BY AGE (PERCENT)

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
11	LESS THAN 1 YEAR OLD	4,96	5,02	5,14	5,26	5,23	5,22	5,17	5,20	5,19	5,20	5,21
21	AGE: 1 YEAR OLD	9,85	9,73	9,87	10,11	10,34	10,26	10,24	10,13	10,18	10,18	10,21
31	AGE: 2 YEARS OLD	9,75	9,62	9,52	9,67	9,89	10,09	10,01	9,99	9,88	9,94	9,94
41	AGE: 3 YEARS OLD	9,82	9,48	9,37	9,28	9,41	9,61	9,80	9,72	9,69	9,59	9,65
51	AGE: 4 YEARS OLD	9,60	9,49	9,17	9,07	8,97	9,07	9,26	9,45	9,37	9,35	9,26
61	AGE: 5 YEARS OLD	9,06	9,19	9,09	8,79	8,68	8,57	8,67	8,89	9,02	8,95	8,93
71	AGE: 6 YEARS OLD	8,19	8,55	8,68	8,58	8,29	8,17	8,07	8,16	8,33	8,49	8,43
81	AGE: 7 YEARS OLD	7,50	7,56	7,90	8,00	7,90	7,62	7,52	7,42	7,51	7,66	7,81
91	AGE: 8 YEARS OLD	6,71	6,76	6,80	7,08	7,17	7,08	6,83	6,74	6,65	6,73	6,86
101	AGE: 9 YEARS OLD	5,66	5,85	5,87	5,88	6,12	6,19	6,11	5,91	5,83	5,75	5,80
111	AGE: 10 YEARS OLD	4,68	4,64	4,77	4,75	4,76	4,95	5,02	4,97	4,80	4,73	4,65
121	AGE: 11 YEARS OLD	3,84	3,63	3,57	3,63	3,61	3,62	3,78	3,84	3,80	3,66	3,59
131	AGE: 12 YEARS OLD	3,01	2,90	2,71	2,63	2,67	2,66	2,68	2,81	2,85	2,82	2,70
141	AGE: 13 YEARS OLD	2,23	2,25	2,14	1,98	1,91	1,95	1,95	1,97	2,06	2,09	2,06
151	AGE: 14 YEARS OLD	1,50	1,67	1,67	1,57	1,44	1,40	1,43	1,43	1,45	1,51	1,53
161	AGE: 15 YEARS OLD	0,95	1,13	1,23	1,22	1,14	1,05	1,03	1,05	1,05	1,06	1,11
171	AGE: 16 YEARS OLD	0,76	0,71	0,83	0,90	0,88	0,83	0,77	0,75	0,77	0,77	0,78
181	AGE: 17 YEARS OLD	0,76	0,57	0,53	0,61	0,65	0,65	0,61	0,57	0,55	0,57	0,56
191	AGE: 18 YEARS OLD	0,54	0,57	0,42	0,39	0,44	0,48	0,47	0,45	0,42	0,41	0,41
201	AGE: 19 YEARS OLD	0,39	0,40	0,42	0,31	0,28	0,32	0,35	0,35	0,33	0,31	0,30
211	AGE: 20 YEARS OLD	0,25	0,29	0,30	0,31	0,22	0,21	0,24	0,26	0,26	0,24	0,22

TABLE 7.00 GROWTH RATES, CARS IN OPERATION: MID-YEAR

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
11	CARS IN OPERATION: ALL VINTAGES	1.3	2.6	2.8	2.4	1.9	1.4	1.0	1.2	1.7	2.1	2.1
21												
31	LESS THAN 1 YEAR OLD	-2.6	-4.1	0.9	5.0	2.3	2.5	6.1	3.1	0.4	-1.8	0.3
41	AGE: 1 YEAR OLD	1.5	-2.5	-4.1	0.8	5.0	2.3	2.4	6.1	3.1	0.4	-1.8
51	AGE: 2 YEARS OLD	10.6	1.7	-2.5	-4.1	0.8	5.0	2.2	2.4	6.2	3.2	0.5
61	AGE: 3 YEARS OLD	17.9	10.9	1.8	-2.5	-4.1	0.7	4.9	2.2	2.5	6.3	3.2
71	AGE: 4 YEARS OLD	-5.3	18.4	11.0	1.7	-2.6	-4.3	0.6	4.8	2.2	2.6	6.3
81	AGE: 5 YEARS OLD	-23.7	-4.7	18.7	10.9	1.6	-2.8	-4.5	0.5	4.9	2.4	2.7
91	AGE: 6 YEARS OLD	8.0	-23.0	-4.4	18.5	10.7	1.3	-3.1	-4.6	0.7	5.2	2.6
101	AGE: 7 YEARS OLD	6.3	9.5	-22.6	-4.6	18.1	10.3	0.8	-3.3	-4.4	1.1	5.5
111	AGE: 8 YEARS OLD	17.2	8.5	10.5	-22.8	-5.0	17.5	9.5	0.5	-3.0	-3.8	1.5
121	AGE: 9 YEARS OLD	-12.5	20.5	9.8	10.0	-23.2	-5.7	16.4	9.1	1.0	-2.1	-3.3
131	AGE: 10 YEARS OLD	0.2	-8.6	22.8	9.1	9.0	-24.1	-7.1	15.6	9.8	2.3	-1.4
141	AGE: 11 YEARS OLD	9.8	6.6	-6.0	22.0	7.7	7.5	-25.7	-8.1	16.5	11.8	3.5
151	AGE: 12 YEARS OLD	-11.2	18.0	10.2	-6.6	20.1	6.0	4.9	-26.6	-7.3	18.9	13.3
161	AGE: 13 YEARS OLD	-8.9	-4.2	22.3	9.5	-8.1	18.2	3.4	3.5	-26.0	-5.3	20.7
171	AGE: 14 YEARS OLD	10.7	-1.7	-0.7	21.5	7.8	-9.6	15.3	2.0	4.4	-24.4	-3.9
181	AGE: 15 YEARS OLD	5.9	19.4	1.9	-1.3	19.6	6.1	-11.9	13.7	2.8	6.6	-23.3
191	AGE: 16 YEARS OLD	9.4	14.2	23.8	1.3	-2.9	17.7	3.4	-13.0	14.7	5.0	8.2
201	AGE: 17 YEARS OLD	18.7	18.1	18.4	23.0	-0.3	-4.4	14.8	2.1	-12.3	17.1	6.6
211	AGE: 18 YEARS OLD	-11.3	28.0	22.4	17.7	21.1	-1.9	-6.8	13.3	2.9	-10.4	18.8
221	AGE: 19 YEARS OLD	9.3	-4.3	32.7	21.6	15.8	19.1	-4.4	-8.0	14.2	5.1	-9.1
231	AGE: 20 YEARS OLD	29.8	17.9	-0.8	31.9	19.7	14.0	16.2	-5.6	-7.3	16.6	6.6

TABLE 7.10 GROWTH RATES, CARS IN OPERATION: SHARES BY AGE

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
11	LESS THAN 1 YEAR OLD	-3.8	-6.5	-1.9	2.6	0.4	1.1	5.1	1.9	-1.2	-3.8	-1.7
21	AGE: 1 YEAR OLD	0.2	-5.0	-6.7	-1.5	3.1	0.9	1.4	4.9	1.4	-1.6	-3.8
31	AGE: 2 YEARS OLD	9.2	-0.9	-5.1	-6.3	-1.0	3.6	1.2	1.2	4.4	1.1	-1.6
41	AGE: 3 YEARS OLD	16.4	8.1	-1.0	-4.8	-5.9	-0.6	3.8	0.9	0.8	4.1	1.1
51	AGE: 4 YEARS OLD	-6.5	15.4	8.0	-0.6	-4.4	-5.5	-0.4	3.6	0.5	0.5	4.1
61	AGE: 5 YEARS OLD	-24.7	-7.1	15.4	8.4	-0.3	-4.1	-5.4	-0.7	3.2	0.3	0.6
71	AGE: 6 YEARS OLD	6.6	-25.0	-7.0	15.8	8.7	-0.0	-4.1	-5.7	-1.0	3.1	0.5
81	AGE: 7 YEARS OLD	5.0	6.7	-24.7	-6.8	16.0	8.8	-0.2	-4.4	-5.9	-1.0	3.3
91	AGE: 8 YEARS OLD	15.7	5.8	7.5	-24.6	-6.7	15.9	8.4	-0.7	-4.6	-5.7	-0.6
101	AGE: 9 YEARS OLD	-13.6	17.5	6.8	7.5	-24.6	-7.0	15.2	7.8	-0.7	-4.1	-5.3
111	AGE: 10 YEARS OLD	-1.1	-10.9	19.4	6.6	7.0	-25.1	-8.1	14.2	8.0	0.2	-3.4
121	AGE: 11 YEARS OLD	8.4	3.9	-8.6	19.1	5.7	6.0	-26.5	-9.2	14.6	9.5	1.4
131	AGE: 12 YEARS OLD	-12.3	15.0	7.2	-8.8	17.9	4.6	3.8	-27.5	-8.9	16.5	11.0
141	AGE: 13 YEARS OLD	-10.0	-6.6	19.0	7.0	-9.8	16.6	2.3	2.3	-27.2	-7.3	18.2
151	AGE: 14 YEARS OLD	9.3	-4.2	-3.4	18.7	5.8	-10.8	14.1	0.8	2.6	-26.0	-5.9
161	AGE: 15 YEARS OLD	4.6	16.4	-0.8	-3.6	17.4	4.6	-12.8	12.4	1.1	4.4	-24.9
171	AGE: 16 YEARS OLD	8.1	11.4	20.4	-1.0	-4.6	16.1	2.4	-14.1	12.8	2.9	5.9
181	AGE: 17 YEARS OLD	17.2	15.1	15.2	20.2	-2.1	-5.7	13.6	0.8	-13.8	14.7	4.4
191	AGE: 18 YEARS OLD	-12.4	24.8	19.1	15.0	18.9	-3.2	-7.8	11.9	1.2	-12.2	16.4
201	AGE: 19 YEARS OLD	7.9	-6.7	29.1	18.8	13.7	17.5	-5.3	-9.1	12.3	3.0	-11.0
211	AGE: 20 YEARS OLD	28.2	14.9	-3.5	28.9	17.5	12.5	15.0	-6.8	-8.8	14.3	4.5

TABLE 7.00 GROWTH RATES, CARS IN OPERATION: MID-YEAR

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
11	CARS IN OPERATION: ALL VINTAGES	1.9	1.7	1.4	1.3	1.4	1.7	1.7	1.8	1.8	1.7	1.6
21												
31	LESS THAN 1 YEAR OLD	0.4	2.9	3.8	3.7	0.9	1.5	0.7	2.3	1.7	1.9	1.8
41	AGE: 1 YEAR OLD	0.3	0.4	2.9	3.8	3.7	0.9	1.5	0.7	2.3	1.7	1.9
51	AGE: 2 YEARS OLD	-1.8	0.3	0.4	2.9	3.8	3.8	0.9	1.5	0.7	2.3	1.7
61	AGE: 3 YEARS OLD	0.5	-1.8	0.2	0.3	2.9	3.8	3.8	0.9	1.5	0.7	2.3
71	AGE: 4 YEARS OLD	3.2	0.4	-1.9	0.2	0.3	2.9	3.8	3.8	0.9	1.5	0.7
81	AGE: 5 YEARS OLD	6.3	3.2	0.3	-2.0	0.2	0.4	2.9	3.9	3.8	0.9	1.4
91	AGE: 6 YEARS OLD	2.7	6.2	3.0	0.1	-2.0	0.2	0.4	3.0	3.9	3.7	0.8
101	AGE: 7 YEARS OLD	2.6	2.5	5.9	2.7	0.2	-1.9	0.3	0.5	3.0	3.8	3.6
111	AGE: 8 YEARS OLD	5.4	2.3	2.1	5.5	2.7	0.3	-1.8	0.4	0.5	2.9	3.6
121	AGE: 9 YEARS OLD	1.4	5.1	1.7	1.5	5.5	2.9	0.5	-1.7	0.4	0.3	2.6
131	AGE: 10 YEARS OLD	-3.4	0.9	4.2	0.9	1.6	5.9	3.1	0.7	-1.7	0.2	-0.0
141	AGE: 11 YEARS OLD	-1.4	-4.0	-0.2	2.9	0.8	2.1	6.2	3.5	0.7	-2.0	-0.3
151	AGE: 12 YEARS OLD	3.5	-2.1	-5.2	-1.6	2.8	1.5	2.4	6.6	3.5	0.4	-2.5
161	AGE: 13 YEARS OLD	13.4	2.8	-3.4	-6.6	-1.8	3.5	1.8	2.8	6.6	3.2	-0.2
171	AGE: 14 YEARS OLD	20.7	12.6	1.4	-4.8	-6.8	-1.1	3.8	2.2	2.9	6.3	2.6
181	AGE: 15 YEARS OLD	-3.9	19.9	11.1	-0.1	-5.0	-6.1	-0.8	4.2	2.2	2.5	5.7
191	AGE: 16 YEARS OLD	-23.3	-4.6	18.3	9.4	-0.3	-4.3	-5.8	-0.5	4.3	1.9	2.0
201	AGE: 17 YEARS OLD	8.2	-23.8	-5.9	16.5	9.2	0.4	-4.0	-5.5	-0.4	3.9	1.3
211	AGE: 18 YEARS OLD	6.6	7.4	-24.8	-7.2	16.3	10.0	0.7	-3.7	-5.4	-0.7	3.4
221	AGE: 19 YEARS OLD	18.9	5.9	6.0	-25.9	-7.4	17.1	10.3	1.1	-3.6	-5.7	-1.3
231	AGE: 20 YEARS OLD	-9.1	18.0	4.5	4.5	-26.1	-6.8	17.5	10.7	1.2	-3.9	-6.2

MARCH CONTROL FORECAST TO 2000

TABLE 7.10 GROWTH RATES, CARS IN OPERATION: SHARES BY AGE

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
11	LESS THAN 1 YEAR OLD	-1.5	1.2	2.4	2.4	-0.5	-0.2	-1.0	0.5	-0.1	0.2	0.1
21	AGE: 1 YEAR OLD	-1.5	-1.2	1.4	2.5	2.3	-0.8	-0.2	-1.0	0.5	-0.0	0.3
31	AGE: 2 YEARS OLD	-3.6	-1.3	-1.0	1.5	2.3	2.0	-0.8	-0.3	-1.1	0.6	0.0
41	AGE: 3 YEARS OLD	-1.4	-3.4	-1.2	-1.0	1.4	2.1	2.0	-0.8	-0.3	-1.0	0.6
51	AGE: 4 YEARS OLD	1.3	-1.2	-3.3	-1.1	-1.1	1.2	2.1	2.0	-0.8	-0.2	-1.0
61	AGE: 5 YEARS OLD	4.4	1.5	-1.1	-3.3	-1.3	-1.3	1.2	2.1	2.0	-0.8	-0.2
71	AGE: 6 YEARS OLD	0.8	4.5	1.5	-1.2	-3.4	-1.4	-1.3	1.2	2.1	2.0	-0.8
81	AGE: 7 YEARS OLD	0.7	0.8	4.4	1.4	-1.3	-3.5	-1.4	-1.3	1.2	2.0	2.0
91	AGE: 8 YEARS OLD	3.5	0.7	0.7	4.1	1.2	-1.3	-3.5	-1.3	-1.3	1.1	2.0
101	AGE: 9 YEARS OLD	-0.5	3.4	0.3	0.2	4.0	1.2	-1.2	-3.4	-1.3	-1.4	1.0
111	AGE: 10 YEARS OLD	-5.1	-0.7	2.7	-0.4	0.1	4.1	1.4	-1.1	-3.4	-1.5	-1.6
121	AGE: 11 YEARS OLD	-3.2	-5.5	-1.6	1.6	-0.6	0.4	4.4	1.7	-1.1	-3.6	-1.9
131	AGE: 12 YEARS OLD	1.6	-3.7	-6.5	-2.9	1.3	-0.2	0.7	4.7	1.7	-1.3	-4.1
141	AGE: 13 YEARS OLD	11.3	1.1	-4.7	-7.8	-3.2	1.8	0.0	1.0	4.7	1.4	-1.8
151	AGE: 14 YEARS OLD	18.5	10.7	-0.0	-6.0	-8.1	-2.8	2.0	0.4	1.1	4.5	1.0
161	AGE: 15 YEARS OLD	-5.7	17.9	9.5	-1.4	-6.3	-7.7	-2.5	2.4	0.4	0.8	4.0
171	AGE: 16 YEARS OLD	-24.7	-6.1	16.6	8.0	-1.7	-5.9	-7.4	-2.2	2.4	0.2	0.3
181	AGE: 17 YEARS OLD	6.2	-25.1	-7.2	15.0	7.7	-1.2	-5.7	-7.1	-2.2	2.2	-0.3
191	AGE: 18 YEARS OLD	4.7	5.7	-25.9	-8.4	14.7	8.2	-1.0	-5.3	-7.1	-2.4	1.7
201	AGE: 19 YEARS OLD	16.7	4.1	4.5	-26.9	-8.7	15.2	8.4	-0.6	-5.3	-7.3	-2.9
211	AGE: 20 YEARS OLD	-10.7	16.1	3.0	3.1	-27.1	-8.3	15.5	8.8	-0.6	-5.6	-7.7

TABLE 8.00 SCRAPPAGE (MILL AUTOS)

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	TOTAL SCRAPPAGE DOMESTIC AND FOREIGN	8.389	7.180	7.461	8.576	9.144	10.138	10.800	10.758	10.167	9.624	9.763
2												
3	SUBCOMPACT DOMESTIC	0.330	0.351	0.445	0.600	0.720	0.874	0.991	1.019	0.976	0.932	0.947
4	SUBCOMPACT FOREIGN	0.841	0.777	0.853	1.028	1.136	1.310	1.446	1.483	1.444	1.397	1.433
5	SUBCOMPACT TOTAL	1.171	1.128	1.298	1.628	1.856	2.184	2.437	2.502	2.420	2.328	2.379
6												
7	COMPACT DOMESTIC	1.404	1.230	1.305	1.523	1.663	1.884	2.067	2.102	2.015	1.930	1.970
8	COMPACT FOREIGN	0.062	0.058	0.065	0.080	0.089	0.102	0.111	0.108	0.099	0.090	0.087
9	COMPACT TOTAL	1.466	1.289	1.370	1.603	1.752	1.987	2.177	2.210	2.114	2.020	2.057
10												
11	MID-SIZE	1.974	1.674	1.721	1.978	2.138	2.410	2.613	2.692	2.548	2.424	2.476
12												
13	FULL SIZE	3.045	2.454	2.400	2.582	2.553	2.613	2.558	2.375	2.114	1.929	1.919
14												
15	LUXURY DOMESTIC	0.682	0.589	0.618	0.719	0.771	0.858	0.918	0.922	0.878	0.833	0.844
16	LUXURY FOREIGN	0.051	0.048	0.054	0.066	0.074	0.086	0.096	0.097	0.093	0.088	0.088
17	LUXURY TOTAL	0.733	0.637	0.672	0.785	0.845	0.944	1.013	1.019	0.971	0.921	0.933

MARCH CONTROL FORECAST TO 2000

TABLE 8.10 GROWTH RATES, SCRAPPAGE

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	TOTAL SCRAPPAGE DOMESTIC AND FOREIGN	-20.8	-14.4	3.9	15.0	6.6	10.9	6.5	-0.4	-5.5	-5.3	1.5
2												
3	SUBCOMPACT DOMESTIC	-2.6	6.2	26.9	34.9	19.9	21.3	13.4	2.9	-4.3	-4.5	1.6
4	SUBCOMPACT FOREIGN	-12.7	-7.6	9.8	20.5	10.5	15.4	10.4	2.5	-2.6	-3.3	2.6
5	SUBCOMPACT TOTAL	-10.1	-3.7	15.1	25.4	14.0	17.7	11.6	2.7	-3.3	-3.8	2.2
6												
7	COMPACT DOMESTIC	-18.4	-12.4	6.1	16.7	9.1	13.3	9.7	1.7	-4.1	-4.2	2.0
8	COMPACT FOREIGN	-11.8	-5.9	11.6	22.3	11.7	15.2	8.1	-2.4	-8.6	-8.8	-3.0
9	COMPACT TOTAL	-18.1	-12.1	6.3	17.0	9.3	13.4	9.6	1.5	-4.4	-4.4	1.8
10												
11	MID-SIZE	-22.4	-15.2	2.8	15.0	8.1	12.8	8.4	1.5	-3.9	-4.8	2.1
12												
13	FULL SIZE	-24.8	-19.4	-2.2	7.6	-1.1	2.3	-2.1	-7.2	-11.0	-8.7	-0.5
14												
15	LUXURY DOMESTIC	-19.4	-13.7	4.9	16.4	7.2	11.2	7.0	0.5	-4.8	-5.1	1.3
16	LUXURY FOREIGN	-11.2	-6.4	11.9	22.8	12.3	16.5	10.8	1.5	-4.4	-5.1	0.4
17	LUXURY TOTAL	-18.9	-13.2	5.4	16.9	7.6	11.7	7.4	0.6	-4.7	-5.1	1.2

TABLE 8.00 SCRAPPAGE (MILL AUTOS)

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	TOTAL SCRAPPAGE DOMESTIC AND FOREIGN	10.161	10.680	11.464	11.933	11.643	11.693	11.699	11.866	12.134	12.506	12.841
2												
3	SUBCOMPACT DOMESTIC	0.986	1.042	1.126	1.163	1.127	1.124	1.112	1.108	1.115	1.141	1.157
4	SUBCOMPACT FOREIGN	1.503	1.595	1.719	1.797	1.767	1.794	1.825	1.876	1.965	2.064	2.161
5	SUBCOMPACT TOTAL	2.489	2.638	2.845	2.960	2.894	2.919	2.937	2.984	3.080	3.205	3.319
6												
7	COMPACT DOMESTIC	2.069	2.194	2.355	2.462	2.417	2.444	2.454	2.501	2.561	2.653	2.738
8	COMPACT FOREIGN	0.087	0.087	0.089	0.087	0.079	0.074	0.070	0.065	0.062	0.060	0.058
9	COMPACT TOTAL	2.156	2.281	2.443	2.548	2.496	2.519	2.523	2.566	2.624	2.713	2.796
10												
11	MID-SIZE	2.580	2.721	2.923	3.056	2.989	3.013	3.015	3.066	3.133	3.226	3.314
12												
13	FULL SIZE	1.966	2.025	2.159	2.227	2.145	2.113	2.080	2.077	2.082	2.098	2.099
14												
15	LUXURY DOMESTIC	0.878	0.918	0.990	1.032	1.010	1.019	1.031	1.056	1.093	1.135	1.178
16	LUXURY FOREIGN	0.091	0.096	0.104	0.109	0.108	0.111	0.114	0.117	0.122	0.129	0.134
17	LUXURY TOTAL	0.969	1.014	1.093	1.141	1.119	1.130	1.145	1.173	1.215	1.264	1.313

MARCH CONTROL FORECAST TO 2000

TABLE 8.10 GROWTH RATES, SCRAPPAGE

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	TOTAL SCRAPPAGE DOMESTIC AND FOREIGN	4.1	5.1	7.3	4.1	-2.4	0.4	0.1	1.4	2.3	3.1	2.7
2												
3	SUBCOMPACT DOMESTIC	4.2	5.7	8.0	3.3	-3.1	-0.3	-1.1	-0.3	0.6	2.3	1.5
4	SUBCOMPACT FOREIGN	4.9	6.2	7.7	4.5	-1.7	1.6	1.7	2.8	4.7	5.0	4.7
5	SUBCOMPACT TOTAL	4.6	6.0	7.9	4.0	-2.2	0.9	0.6	1.6	3.2	4.0	3.5
6												
7	COMPACT DOMESTIC	5.1	6.0	7.3	4.5	-1.8	1.1	0.4	1.9	2.4	3.6	3.2
8	COMPACT FOREIGN	-0.7	0.6	1.4	-2.3	-8.4	-6.2	-6.4	-6.7	-4.0	-3.6	-4.0
9	COMPACT TOTAL	4.8	5.8	7.1	4.3	-2.0	0.9	0.2	1.7	2.2	3.4	3.0
10												
11	MID-SIZE	4.2	5.5	7.4	4.6	-2.2	0.8	0.1	1.7	2.2	3.0	2.7
12												
13	FULL SIZE	2.5	3.0	6.6	3.1	-3.7	-1.5	-1.6	-0.2	0.2	0.8	0.1
14												
15	LUXURY DOMESTIC	4.0	4.5	7.8	4.3	-2.1	0.8	1.2	2.4	3.5	3.9	3.8
16	LUXURY FOREIGN	3.2	5.4	7.6	5.4	-0.9	2.8	2.3	3.1	4.3	5.3	4.2
17	LUXURY TOTAL	4.0	4.6	7.8	4.4	-2.0	1.0	1.3	2.5	3.6	4.0	3.9

TABLE 9.00 MISCELLANEOUS MARKET VARIABLES

LINE	ITEM		1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	LONG-RUN EQUILIBRIUM ('DESIRED') VALUES												
2	DESIRED STOCK	MILL AUTOS	101,378	103,835	106,018	108,471	111,060	113,438	115,855	118,306	120,676	122,754	124,640
3	DESIRED STOCK PER DRIVER	AUTOS	0.703	0.705	0.707	0.711	0.717	0.722	0.727	0.731	0.735	0.739	0.742
4													
5	DESIRED SHARE BY SIZE-CLASS (PERCENT)												
6	TOTAL DOMESTIC		86.46	86.26	86.19	86.34	86.42	86.36	86.45	86.13	85.75	85.34	84.98
7	SUBCOMPACT		10.85	11.08	11.24	11.33	11.40	11.41	11.52	11.33	11.17	11.05	10.91
8	COMPACT		19.20	19.38	19.46	19.61	19.71	19.83	19.90	19.91	19.99	20.14	20.29
9	MID-SIZE		24.48	24.70	24.81	25.08	25.28	25.35	25.47	25.48	25.51	25.53	25.56
10	FULL SIZE		23.26	22.52	22.06	21.74	21.46	21.17	20.86	20.63	20.22	19.68	19.19
11	LUXURY		8.66	8.63	8.62	8.59	8.56	8.59	8.69	8.77	8.86	8.94	9.02
12													
13	TOTAL FOREIGN		13.54	13.74	13.81	13.66	13.58	13.64	13.55	13.87	14.25	14.66	15.02
14	SUBCOMPACT		11.99	12.20	12.30	12.19	12.15	12.24	12.14	12.49	12.90	13.31	13.69
15	COMPACT AND LUXURY		1.55	1.54	1.51	1.47	1.44	1.41	1.41	1.38	1.35	1.35	1.33
16													
17	AVG AGE OF AUTO STOCK	YEARS	5.643	5.725	5.850	5.941	5.982	5.985	5.935	5.856	5.801	5.797	5.822
18													
19	YEAR-END STOCK PER FAMILY	AUTOS	1.248	1.261	1.271	1.273	1.272	1.263	1.256	1.255	1.260	1.270	1.278
20	VEHICLE MILES PER AUTO: TOTAL	MILES	12.09	12.26	12.29	12.38	12.53	12.78	13.09	13.39	13.63	13.78	13.88
21	URBAN	MILES	6.975	7.157	7.271	7.403	7.549	7.748	7.962	8.186	8.398	8.574	8.733
22	RURAL	MILES	5.120	5.098	5.024	4.979	4.977	5.030	5.128	5.203	5.237	5.203	5.146
23	NEW REGIS. TO BEGINNING STOCK	RATIO	0.107	0.100	0.098	0.100	0.101	0.101	0.106	0.109	0.108	0.104	0.102
24	SCRAPPAGE TO BEGINNING STOCK	RATIO	0.084	0.071	0.071	0.080	0.083	0.091	0.096	0.095	0.088	0.082	0.081

MARCH CONTROL FORECAST TO 2000

TABLE 9.10 GROWTH RATES, MISCELLANEOUS MARKET VARIABLES

LINE	ITEM		1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	LONG-RUN EQUILIBRIUM ('DESIRED') VALUES												
2	DESIRED STOCK	MILL AUTOS	2.2	2.4	2.1	2.3	2.4	2.1	2.1	2.1	2.0	1.7	1.5
3	DESIRED STOCK PER DRIVER	AUTOS	0.0	0.4	0.2	0.6	0.8	0.7	0.7	0.7	0.5	0.5	0.4
4													
5	DESIRED SHARE BY SIZE-CLASS (PERCENT)												
6	TOTAL DOMESTIC		0.7	-0.2	-0.1	0.2	0.1	-0.1	0.1	-0.4	-0.4	-0.5	-0.4
7	SUBCOMPACT		1.4	2.1	1.5	0.8	0.6	0.1	1.0	-1.6	-1.4	-1.1	-1.2
8	COMPACT		2.9	0.7	0.6	0.8	0.5	0.6	0.4	0.0	0.4	0.8	0.7
9	MID-SIZE		0.6	0.9	0.5	1.1	0.8	0.3	0.5	0.1	0.1	0.1	0.1
10	FULL SIZE		-1.3	-3.2	-2.0	-1.5	-1.3	-1.3	-1.5	-1.1	-1.9	-2.7	-2.5
11	LUXURY		1.3	-0.4	-0.1	-0.3	-0.3	0.3	1.2	0.9	1.0	0.9	0.9
12													
13	TOTAL FOREIGN		-0.4	1.4	0.5	-1.1	-0.6	0.5	-0.7	2.4	2.7	2.9	2.5
14	SUBCOMPACT		-3.2	1.7	0.8	-0.9	-0.4	0.8	-0.8	2.9	3.3	3.2	2.9
15	COMPACT AND LUXURY		-12.9	-0.8	-1.7	-3.1	-2.1	-2.1	0.4	-2.2	-2.6	0.1	-1.1
16													
17	AVG AGE OF AUTO STOCK	YEARS	-0.4	1.5	2.2	1.6	0.7	0.0	-0.8	-1.3	-0.9	-0.1	0.4
18													
19	YEAR-END STOCK PER FAMILY	AUTOS	0.3	1.0	0.8	0.2	-0.1	-0.7	-0.6	-0.1	0.5	0.7	0.6
20	VEHICLE MILES PER AUTO: TOTAL	MILES	1.2	1.3	0.3	0.7	1.2	2.0	2.4	2.3	1.8	1.0	0.7
21	URBAN	MILES	1.3	2.6	1.6	1.8	2.0	2.6	2.8	2.8	2.6	2.1	1.8
22	RURAL	MILES	1.0	-0.4	-1.5	-0.9	-0.1	1.1	1.9	1.5	0.6	-0.7	-1.1
23	NEW REGIS. TO BEGINNING STOCK	RATIO		-6.2	-2.0	2.3	0.2	0.7	5.1	2.1	-1.0	-3.7	-1.8
24	SCRAPPAGE TO BEGINNING STOCK	RATIO		-16.3	0.9	12.0	4.5	9.0	5.4	-1.4	-6.8	-7.1	-0.7

TABLE 9.00 MISCELLANEOUS MARKET VARIABLES

LINE	ITEM		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	LONG-RUN EQUILIBRIUM ('DESIRED') VALUES												
2	DESIRED STOCK	MILL AUTOS	126,459	128,387	130,475	132,672	134,803	136,943	139,038	141,086	143,951	146,366	148,830
3	DESIRED STOCK PER DRIVER	AUTOS	0,745	0,749	0,754	0,760	0,764	0,769	0,772	0,777	0,782	0,786	0,791
4													
5	DESIRED SHARE BY SIZE-CLASS (PERCENT)												
6	TOTAL DOMESTIC		84,58	84,27	83,96	83,72	83,45	83,23	83,02	82,70	82,53	82,44	82,36
7	SUBCOMPACT		10,85	10,74	10,65	10,50	10,38	10,31	10,27	10,26	10,24	10,24	10,17
8	COMPACT		20,38	20,46	20,50	20,57	20,70	20,82	20,97	21,02	21,11	21,22	21,37
9	MID-SIZE		25,55	25,58	25,59	25,64	25,68	25,72	25,75	25,76	25,79	25,83	25,90
10	FULL SIZE		18,70	18,32	17,98	17,65	17,24	16,82	16,36	15,90	15,53	15,18	14,89
11	LUXURY		9,09	9,17	9,25	9,35	9,45	9,57	9,67	9,76	9,86	9,96	10,07
12													
13	TOTAL FOREIGN		15,42	15,73	16,04	16,28	16,55	16,77	16,98	17,30	17,47	17,56	17,64
14	SUBCOMPACT		14,06	14,39	14,69	14,97	15,29	15,54	15,78	16,08	16,27	16,39	16,51
15	COMPACT AND LUXURY		1,36	1,35	1,35	1,31	1,27	1,23	1,20	1,22	1,20	1,18	1,12
16													
17	AVG AGE OF AUTO STOCK	YEARS	5,853	5,876	5,867	5,831	5,794	5,782	5,780	5,778	5,774	5,767	5,757
18													
19	YEAR-END STOCK PER FAMILY	AUTOS	1,282	1,285	1,284	1,284	1,287	1,291	1,296	1,302	1,307	1,311	1,315
20	VEHICLE MILES PER AUTO: TOTAL	MILES	13,99	14,12	14,27	14,44	14,59	14,71	14,83	14,94	15,07	15,21	15,35
21	URBAN	MILES	8,888	9,045	9,208	9,377	9,549	9,698	9,852	10,005	10,171	10,350	10,518
22	RURAL	MILES	5,100	5,076	5,063	5,061	5,048	5,015	4,980	4,938	4,895	4,864	4,835
23	NEW REGIS. TO BEGINNING STOCK	RATIO	0,100	0,101	0,103	0,106	0,106	0,105	0,104	0,105	0,105	0,105	0,105
24	SCRAPPAGE TO BEGINNING STOCK	RATIO	0,083	0,086	0,090	0,093	0,089	0,088	0,087	0,087	0,087	0,088	0,089

MARCH CONTROL FORECAST TO 2000

TABLE 9.10 GROWTH RATES, MISCELLANEOUS MARKET VARIABLES

LINE	ITEM		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	LONG-RUN EQUILIBRIUM ('DESIRED') VALUES												
2	DESIRED STOCK	MILL AUTOS	1,5	1,5	1,6	1,7	1,6	1,6	1,5	1,8	1,7	1,7	1,7
3	DESIRED STOCK PER DRIVER	AUTOS	0,4	0,5	0,7	0,7	0,6	0,6	0,5	0,7	0,6	0,5	0,6
4													
5	DESIRED SHARE BY SIZE-CLASS (PERCENT)												
6	TOTAL DOMESTIC		-0,5	-0,4	-0,4	-0,3	-0,3	-0,3	-0,3	-0,4	-0,2	-0,1	-0,1
7	SUBCOMPACT		-0,6	-1,0	-0,8	-1,4	-1,1	-0,7	-0,4	-0,0	-0,2	-0,0	-0,6
8	COMPACT		0,5	0,4	0,2	0,4	0,6	0,6	0,7	0,2	0,4	0,5	0,7
9	MID-SIZE		-0,0	0,1	0,0	0,2	0,2	0,2	0,1	0,0	0,1	0,2	0,2
10	FULL SIZE		-2,6	-2,0	-1,9	-1,8	-2,4	-2,4	-2,7	-2,8	-2,4	-2,2	-2,1
11	LUXURY		0,8	0,9	0,8	1,1	1,1	1,2	1,1	1,0	1,0	1,1	1,1
12													
13	TOTAL FOREIGN		2,7	2,0	2,0	1,5	1,7	1,3	1,3	1,9	1,0	0,5	0,4
14	SUBCOMPACT		2,7	2,3	2,1	1,9	2,1	1,7	1,5	1,9	1,2	0,7	0,8
15	COMPACT AND LUXURY		1,8	-0,6	0,3	-3,1	-3,3	-2,8	-2,4	1,2	-1,3	-1,9	-4,5
16													
17	AVG AGE OF AUTO STOCK	YEARS	0,5	0,4	-0,1	-0,6	-0,6	-0,2	-0,0	-0,0	-0,1	-0,1	-0,2
18													
19	YEAR-END STOCK PER FAMILY	AUTOS	0,4	0,2	-0,0	-0,0	0,2	0,3	0,4	0,5	0,4	0,3	0,2
20	VEHICLE MILES PER AUTO: TOTAL	MILES	0,8	0,9	1,1	1,2	1,1	0,8	0,8	0,7	0,8	1,0	0,9
21	URBAN	MILES	1,8	1,8	1,8	1,8	1,8	1,6	1,6	1,6	1,7	1,8	1,6
22	RURAL	MILES	-0,9	-0,5	-0,3	-0,0	-0,3	-0,7	-0,7	-0,9	-0,9	-0,6	-0,6
23	NEW REGIS. TO BEGINNING STOCK	RATIO		1,2	2,2	2,4	-0,4	-0,1	-1,0	0,5	-0,1	0,2	0,1
24	SCRAPPAGE TO BEGINNING STOCK	RATIO		3,3	5,7	2,8	-3,7	-1,2	-1,6	-0,3	0,4	1,3	1,0

TABLE 10.00 DOMESTIC AUTO PRICES (DOLLARS)

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	TOTAL AUTO PRICES:											
2	SUBCOMPACT	5126.	5486.	5897.	6303.	6751.	7213.	7694.	8198.	8718.	9238.	9761.
3	COMPACT	6313.	6759.	7275.	7757.	8277.	8816.	9370.	9940.	10532.	11141.	11759.
4	MID-SIZE	7409.	7949.	8573.	9165.	9799.	10454.	11087.	11737.	12412.	13098.	13793.
5	FULL SIZE	7903.	8508.	9218.	9899.	10625.	11376.	12060.	12764.	13494.	14237.	14988.
6	LUXURY	11989.	12873.	13936.	14938.	16007.	17112.	18115.	19148.	20218.	21308.	22411.
7												
8	STATE AND LOCAL TAXES:											
9	SUBCOMPACT	234.	258.	285.	314.	345.	378.	414.	452.	492.	533.	577.
10	COMPACT	288.	316.	351.	385.	422.	462.	504.	548.	595.	645.	698.
11	MID-SIZE	340.	375.	416.	458.	504.	552.	601.	652.	707.	764.	825.
12	FULL SIZE	363.	402.	449.	496.	548.	603.	656.	712.	771.	833.	899.
13	LUXURY	558.	617.	688.	759.	836.	918.	997.	1081.	1170.	1263.	1362.
14												
15	TRANSPORTATION CHARGES:											
16	SUBCOMPACT	225.	251.	268.	285.	309.	336.	360.	389.	427.	467.	507.
17	COMPACT	294.	333.	354.	370.	391.	416.	437.	461.	492.	525.	556.
18	MID-SIZE	299.	335.	354.	370.	391.	416.	437.	461.	492.	525.	556.
19	FULL SIZE	314.	339.	354.	370.	391.	416.	437.	461.	492.	525.	556.
20	LUXURY	314.	339.	354.	370.	391.	416.	437.	461.	492.	525.	556.
21												
22	BASE PRICE: FIXED WTD AVERAGE TOTAL	5711.	6107.	6603.	7062.	7554.	8063.	8548.	9046.	9560.	10084.	10611.
23	SUBCOMPACT	4119.	4377.	4702.	5000.	5320.	5651.	5994.	6347.	6709.	7078.	7448.
24	COMPACT	4771.	5076.	5466.	5819.	6199.	6594.	6998.	7415.	7844.	8281.	8722.
25	MID-SIZE	5536.	5905.	6367.	6794.	7252.	7725.	8177.	8641.	9119.	9607.	10099.
26	FULL SIZE	5854.	6294.	6838.	7344.	7886.	8445.	8940.	9449.	9975.	10510.	11049.
27	LUXURY	9544.	10237.	11098.	11898.	12752.	13633.	14421.	15231.	16066.	16917.	17775.
28												
29	MAX OPTIONS PRICE: FIXED WTD AVERAGE	1624.	1730.	1846.	1959.	2074.	2190.	2302.	2413.	2525.	2637.	2748.
30	SUBCOMPACT	1498.	1594.	1702.	1806.	1912.	2019.	2122.	2224.	2328.	2431.	2533.
31	COMPACT	1574.	1676.	1789.	1898.	2009.	2122.	2230.	2338.	2446.	2555.	2663.
32	MID-SIZE	1652.	1759.	1877.	1992.	2109.	2227.	2340.	2454.	2567.	2681.	2794.
33	FULL SIZE	1647.	1754.	1872.	1986.	2103.	2220.	2334.	2446.	2560.	2673.	2786.
34	LUXURY	1679.	1788.	1909.	2026.	2144.	2264.	2380.	2495.	2610.	2726.	2841.
35												
36	VALUE OF OPTIONS INSTALLED:											
37	SUBCOMPACT	548.	600.	642.	705.	778.	848.	926.	1010.	1090.	1160.	1229.
38	COMPACT	961.	1034.	1105.	1183.	1264.	1345.	1431.	1516.	1601.	1690.	1783.
39	MID-SIZE	1234.	1334.	1436.	1543.	1652.	1761.	1873.	1983.	2093.	2202.	2313.
40	FULL SIZE	1372.	1473.	1579.	1688.	1800.	1913.	2027.	2141.	2256.	2369.	2483.
41	LUXURY	1573.	1681.	1796.	1911.	2028.	2145.	2260.	2375.	2489.	2604.	2718.

TABLE 10.00 DOMESTIC AUTO PRICES (DOLLARS)

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	TOTAL AUTO PRICES:											
2	SUBCOMPACT	10316.	10916.	11555.	12221.	12921.	13638.	14388.	15165.	15996.	16855.	17777.
3	COMPACT	12413.	13108.	13842.	14607.	15439.	16291.	17186.	18097.	19069.	20074.	21151.
4	MID-SIZE	14526.	15302.	16121.	16972.	17894.	18837.	19822.	20827.	21897.	22997.	24178.
5	FULL SIZE	15779.	16616.	17500.	18417.	19410.	20425.	21484.	22565.	23715.	24894.	26163.
6	LUXURY	23576.	24804.	26101.	27445.	28903.	30389.	31942.	33529.	35217.	36945.	38810.
7												
8	STATE AND LOCAL TAXES:											
9	SUBCOMPACT	624.	676.	732.	792.	858.	928.	1002.	1082.	1168.	1260.	1360.
10	COMPACT	755.	818.	885.	957.	1036.	1120.	1210.	1304.	1407.	1517.	1636.
11	MID-SIZE	890.	961.	1038.	1119.	1209.	1304.	1405.	1512.	1628.	1750.	1883.
12	FULL SIZE	970.	1047.	1130.	1219.	1316.	1419.	1528.	1644.	1769.	1901.	2046.
13	LUXURY	1468.	1584.	1708.	1840.	1986.	2139.	2304.	2477.	2665.	2863.	3080.
14												
15	TRANSPORTATION CHARGES:											
16	SUBCOMPACT	549.	598.	652.	709.	758.	811.	869.	929.	997.	1071.	1151.
17	COMPACT	589.	626.	666.	709.	758.	811.	869.	929.	997.	1071.	1151.
18	MID-SIZE	589.	626.	666.	709.	758.	811.	869.	929.	997.	1071.	1151.
19	FULL SIZE	589.	626.	666.	709.	758.	811.	869.	929.	997.	1071.	1151.
20	LUXURY	589.	626.	666.	709.	758.	811.	869.	929.	997.	1071.	1151.
21												
22	BASE PRICE: FIXED WTD AVERAGE TOTAL	11170.	11798.	12378.	13019.	13715.	14420.	15155.	15903.	16698.	17506.	18380.
23	SUBCOMPACT	7840.	8251.	8685.	9132.	9617.	10108.	10619.	11138.	11688.	12247.	12850.
24	COMPACT	9189.	9680.	10198.	10734.	11315.	11905.	12519.	13144.	13809.	14485.	15216.
25	MID-SIZE	10619.	11167.	11745.	12343.	12991.	13648.	14333.	15031.	15772.	16526.	17341.
26	FULL SIZE	11620.	12220.	12855.	13510.	14221.	14942.	15693.	16459.	17272.	18098.	18993.
27	LUXURY	18683.	19638.	20648.	21690.	22821.	23968.	25163.	26381.	27674.	28989.	30412.
28												
29	MAX OPTIONS PRICE: FIXED WTD AVERAGE	2862.	2978.	3096.	3217.	3342.	3468.	3596.	3724.	3856.	3988.	4125.
30	SUBCOMPACT	2638.	2745.	2855.	2966.	3081.	3197.	3315.	3433.	3555.	3677.	3803.
31	COMPACT	2772.	2885.	3000.	3117.	3238.	3360.	3484.	3608.	3736.	3864.	3997.
32	MID-SIZE	2910.	3028.	3149.	3271.	3398.	3527.	3657.	3787.	3921.	4055.	4195.
33	FULL SIZE	2901.	3019.	3139.	3262.	3388.	3516.	3646.	3776.	3909.	4043.	4183.
34	LUXURY	2958.	3078.	3201.	3326.	3455.	3586.	3718.	3850.	3986.	4123.	4265.
35												
36	VALUE OF OPTIONS INSTALLED:											
37	SUBCOMPACT	1304.	1391.	1486.	1587.	1687.	1791.	1898.	2017.	2143.	2278.	2416.
38	COMPACT	1880.	1985.	2093.	2208.	2329.	2456.	2589.	2719.	2856.	3002.	3149.
39	MID-SIZE	2428.	2548.	2672.	2801.	2936.	3074.	3215.	3356.	3501.	3650.	3803.
40	FULL SIZE	2600.	2722.	2849.	2979.	3115.	3253.	3393.	3533.	3677.	3824.	3974.
41	LUXURY	2835.	2956.	3080.	3206.	3338.	3471.	3607.	3742.	3881.	4022.	4168.

TABLE 11.00 GROWTH RATES, DOMESTIC AUTO PRICES

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	TOTAL AUTO PRICES:											
2	SUBCOMPACT	7.5	7.0	7.5	6.9	7.1	6.8	6.7	6.5	6.3	6.0	5.7
3	COMPACT	8.0	7.1	7.6	6.6	6.7	6.5	6.3	6.1	6.0	5.8	5.5
4	MID-SIZE	7.8	7.3	7.8	6.9	6.9	6.7	6.1	5.9	5.7	5.5	5.3
5	FULL SIZE	8.1	7.6	8.3	7.4	7.3	7.1	6.0	5.8	5.7	5.5	5.3
6	LUXURY	7.9	7.4	8.3	7.2	7.2	6.9	5.9	5.7	5.6	5.4	5.2
7												
8	STATE AND LOCAL TAXES:											
9	SUBCOMPACT	10.6	10.0	10.7	9.9	10.0	9.7	9.4	9.2	8.8	8.4	8.2
10	COMPACT	11.1	10.0	10.8	9.8	9.7	9.4	9.1	8.8	8.6	8.3	8.2
11	MID-SIZE	10.9	10.3	11.1	10.0	9.9	9.6	8.8	8.6	8.4	8.1	7.9
12	FULL SIZE	11.5	10.9	11.7	10.5	10.4	10.0	8.8	8.6	8.3	8.1	7.9
13	LUXURY	11.2	10.6	11.5	10.3	10.1	9.8	8.6	8.4	8.2	8.0	7.8
14												
15	TRANSPORTATION CHARGES:											
16	SUBCOMPACT	11.0	11.4	6.8	6.5	8.2	8.8	7.2	8.0	9.7	9.4	8.6
17	COMPACT	12.8	13.2	6.6	4.5	5.7	6.2	5.1	5.6	6.8	6.6	6.0
18	MID-SIZE	11.6	12.0	5.7	4.5	5.7	6.2	5.1	5.6	6.8	6.6	6.0
19	FULL SIZE	7.5	7.8	4.7	4.5	5.7	6.2	5.1	5.6	6.8	6.6	6.0
20	LUXURY	7.5	7.8	4.7	4.5	5.7	6.2	5.1	5.6	6.8	6.6	6.0
21												
22	BASE PRICE: FIXED WTD AVERAGE TOTAL	7.4	6.9	8.1	7.0	7.0	6.7	6.0	5.8	5.7	5.5	5.2
23	SUBCOMPACT	6.8	6.3	7.4	6.3	6.4	6.2	6.1	5.9	5.7	5.5	5.2
24	COMPACT	7.4	6.4	7.7	6.5	6.5	6.4	6.1	5.9	5.8	5.6	5.3
25	MID-SIZE	7.1	6.7	7.8	6.7	6.7	6.5	5.8	5.7	5.5	5.3	5.1
26	FULL SIZE	8.0	7.5	8.6	7.4	7.4	7.1	5.9	5.7	5.6	5.4	5.1
27	LUXURY	7.8	7.3	8.4	7.2	7.2	6.9	5.8	5.6	5.5	5.3	5.1
28												
29	MAX OPTIONS PRICE: FIXED WTD AVERAGE	7.0	6.5	6.7	6.1	5.9	5.6	5.1	4.8	4.6	4.4	4.2
30	SUBCOMPACT	7.0	6.5	6.7	6.1	5.9	5.6	5.1	4.8	4.6	4.4	4.2
31	COMPACT	7.0	6.5	6.7	6.1	5.9	5.6	5.1	4.8	4.6	4.4	4.2
32	MID-SIZE	7.0	6.5	6.7	6.1	5.9	5.6	5.1	4.8	4.6	4.4	4.2
33	FULL SIZE	7.0	6.5	6.7	6.1	5.9	5.6	5.1	4.8	4.6	4.4	4.2
34	LUXURY	7.0	6.5	6.7	6.1	5.9	5.6	5.1	4.8	4.6	4.4	4.2
35												
36	VALUE OF OPTIONS INSTALLED:											
37	SUBCOMPACT	9.8	9.6	6.9	9.9	10.3	9.0	9.2	9.1	7.9	6.4	6.0
38	COMPACT	8.5	7.6	6.8	7.1	6.8	6.4	6.4	5.9	5.6	5.6	5.5
39	MID-SIZE	9.1	8.1	7.6	7.4	7.1	6.6	6.3	5.9	5.6	5.2	5.0
40	FULL SIZE	8.2	7.4	7.2	6.9	6.6	6.3	6.0	5.6	5.4	5.0	4.8
41	LUXURY	7.5	6.8	6.9	6.4	6.1	5.8	5.4	5.1	4.8	4.6	4.4

TABLE 11.00 GROWTH RATES, DOMESTIC AUTO PRICES

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	TOTAL AUTO PRICES:											
2	SUBCOMPACT	5.7	5.8	5.9	5.8	5.7	5.6	5.5	5.4	5.5	5.4	5.5
3	COMPACT	5.6	5.6	5.6	5.5	5.7	5.5	5.5	5.3	5.4	5.3	5.4
4	MID-SIZE	5.3	5.3	5.4	5.3	5.4	5.3	5.2	5.1	5.1	5.0	5.1
5	FULL SIZE	5.3	5.3	5.3	5.2	5.4	5.2	5.2	5.0	5.1	5.0	5.1
6	LUXURY	5.2	5.2	5.2	5.1	5.3	5.1	5.1	5.0	5.0	4.9	5.0
7												
8	STATE AND LOCAL TAXES:											
9	SUBCOMPACT	8.2	8.3	8.3	8.2	8.3	8.1	8.0	7.9	8.0	7.8	7.9
10	COMPACT	8.2	8.2	8.2	8.1	8.3	8.1	8.0	7.8	7.9	7.8	7.9
11	MID-SIZE	8.0	8.0	8.0	7.9	8.0	7.8	7.8	7.6	7.7	7.5	7.6
12	FULL SIZE	7.9	7.9	7.9	7.8	8.0	7.8	7.7	7.6	7.6	7.5	7.6
13	LUXURY	7.8	7.8	7.9	7.8	7.9	7.7	7.7	7.5	7.6	7.4	7.6
14												
15	TRANSPORTATION CHARGES:											
16	SUBCOMPACT	8.2	9.0	9.0	8.8	7.0	7.0	7.1	6.9	7.3	7.4	7.4
17	COMPACT	5.8	6.4	6.3	6.5	7.0	7.0	7.1	6.9	7.3	7.4	7.4
18	MID-SIZE	5.8	6.4	6.3	6.5	7.0	7.0	7.1	6.9	7.3	7.4	7.4
19	FULL SIZE	5.8	6.4	6.3	6.5	7.0	7.0	7.1	6.9	7.3	7.4	7.4
20	LUXURY	5.8	6.4	6.3	6.5	7.0	7.0	7.1	6.9	7.3	7.4	7.4
21												
22	BASE PRICE: FIXED WTD AVERAGE TOTAL	5.3	5.3	5.3	5.2	5.3	5.1	5.1	4.9	5.0	4.8	5.0
23	SUBCOMPACT	5.3	5.2	5.3	5.2	5.3	5.1	5.0	4.9	4.9	4.8	4.9
24	COMPACT	5.4	5.3	5.4	5.3	5.4	5.2	5.2	5.0	5.1	4.9	5.0
25	MID-SIZE	5.2	5.2	5.2	5.1	5.3	5.1	5.0	4.9	4.9	4.8	4.9
26	FULL SIZE	5.2	5.2	5.2	5.1	5.3	5.1	5.0	4.9	4.9	4.8	4.9
27	LUXURY	5.1	5.1	5.1	5.0	5.2	5.0	5.0	4.8	4.9	4.8	4.9
28												
29	MAX OPTIONS PRICE: FIXED WTD AVERAGE	4.1	4.1	4.0	3.9	3.9	3.8	3.7	3.6	3.5	3.4	3.4
30	SUBCOMPACT	4.1	4.1	4.0	3.9	3.9	3.8	3.7	3.6	3.5	3.4	3.4
31	COMPACT	4.1	4.1	4.0	3.9	3.9	3.8	3.7	3.6	3.5	3.4	3.4
32	MID-SIZE	4.1	4.1	4.0	3.9	3.9	3.8	3.7	3.6	3.5	3.4	3.4
33	FULL SIZE	4.1	4.1	4.0	3.9	3.9	3.8	3.7	3.6	3.5	3.4	3.4
34	LUXURY	4.1	4.1	4.0	3.9	3.9	3.8	3.7	3.6	3.5	3.4	3.4
35												
36	VALUE OF OPTIONS INSTALLED:											
37	SUBCOMPACT	6.1	6.7	6.9	6.8	6.3	6.2	6.0	6.2	6.2	6.3	6.1
38	COMPACT	5.5	5.6	5.5	5.4	5.5	5.4	5.4	5.1	5.0	5.1	4.9
39	MID-SIZE	5.0	5.0	4.9	4.8	4.8	4.7	4.6	4.4	4.3	4.3	4.2
40	FULL SIZE	4.7	4.7	4.6	4.6	4.6	4.4	4.3	4.1	4.1	4.0	3.9
41	LUXURY	4.3	4.3	4.2	4.1	4.1	4.0	3.9	3.8	3.7	3.6	3.6

TABLE 12.00 FOREIGN AUTO PRICES (DOLLARS)

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	TOTAL AUTO PRICES:											
2	SUBCOMPACT	6000.	6385.	6793.	7224.	7684.	8143.	8579.	9039.	9509.	9988.	10479.
3	COMPACT	10101.	10744.	11458.	12183.	12941.	13699.	14414.	15154.	15914.	16714.	17544.
4	LUXURY	21033.	22723.	24684.	26683.	28799.	30942.	32965.	35090.	37290.	39627.	42080.
5												
6	STATE AND LOCAL TAXES:											
7	SUBCOMPACT	276.	302.	331.	361.	395.	429.	464.	500.	539.	578.	621.
8	COMPACT	469.	514.	564.	617.	673.	732.	790.	852.	917.	986.	1061.
9	LUXURY	992.	1103.	1234.	1372.	1522.	1681.	1837.	2006.	2184.	2378.	2589.
10												
11	TRANSPORTATION CHARGES:											
12	SUBCOMPACT	227.	252.	270.	287.	311.	338.	362.	392.	429.	470.	510.
13	COMPACT	289.	313.	329.	344.	364.	387.	407.	430.	460.	491.	521.
14	LUXURY	290.	313.	329.	344.	364.	387.	407.	430.	460.	491.	521.
15												
16	BASE PRICES:											
17	SUBCOMPACT	4950.	5230.	5551.	5871.	6202.	6528.	6828.	7137.	7451.	7779.	8118.
18	COMPACT	8382.	8883.	9461.	10039.	10640.	11235.	11786.	12356.	12937.	13547.	14179.
19	LUXURY	18179.	19626.	21325.	23056.	24885.	26730.	28461.	30280.	32156.	34155.	36252.

MARCH CONTROL FORECAST TO 2000

TABLE 12.10 GROWTH RATES, FOREIGN AUTO PRICES

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	TOTAL AUTO PRICES:											
2	SUBCOMPACT	7.7	6.4	6.4	6.3	6.4	6.0	5.4	5.4	5.2	5.0	4.9
3	COMPACT	7.9	6.4	6.6	6.3	6.2	5.9	5.2	5.1	5.0	5.0	5.0
4	LUXURY	10.0	8.0	8.6	8.1	7.9	7.4	6.5	6.4	6.3	6.3	6.2
5												
6	STATE AND LOCAL TAXES:											
7	SUBCOMPACT	10.9	9.4	9.5	9.4	9.2	8.7	8.0	7.9	7.6	7.4	7.4
8	COMPACT	11.1	9.5	9.8	9.4	9.2	8.7	7.9	7.8	7.6	7.6	7.6
9	LUXURY	13.4	11.3	11.8	11.2	10.9	10.4	9.3	9.2	8.9	8.9	8.9
10												
11	TRANSPORTATION CHARGES:											
12	SUBCOMPACT	11.0	11.4	6.8	6.5	8.2	8.8	7.2	8.0	9.7	9.4	8.6
13	COMPACT	12.4	8.4	4.8	4.6	5.8	6.3	5.2	5.7	6.9	6.7	6.2
14	LUXURY	7.8	8.1	4.8	4.6	5.8	6.3	5.2	5.7	6.9	6.7	6.2
15												
16	BASE PRICES:											
17	SUBCOMPACT	7.1	5.7	6.1	5.8	5.6	5.3	4.6	4.5	4.4	4.4	4.4
18	COMPACT	7.5	6.0	6.5	6.1	6.0	5.6	4.9	4.8	4.7	4.7	4.7
19	LUXURY	10.0	8.0	8.7	8.1	7.9	7.4	6.5	6.4	6.2	6.2	6.1

TABLE 12.00 FOREIGN AUTO PRICES (DOLLARS)

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	TOTAL AUTO PRICES:											
2	SUBCOMPACT	10996.	11504.	12124.	12736.	13375.	14047.	14752.	15489.	16269.	17093.	17956.
3	COMPACT	18417.	19350.	20332.	21368.	22465.	23621.	24839.	26095.	27420.	28820.	30291.
4	LUXURY	44693.	47507.	50504.	53699.	57110.	60744.	64619.	68674.	72998.	77603.	82516.
5												
6	STATE AND LOCAL TAXES:											
7	SUBCOMPACT	667.	718.	772.	831.	893.	961.	1033.	1110.	1194.	1283.	1380.
8	COMPACT	1141.	1229.	1323.	1425.	1535.	1653.	1781.	1916.	2062.	2219.	2389.
9	LUXURY	2820.	3073.	3349.	3650.	3979.	4338.	4730.	5152.	5612.	6113.	6660.
10												
11	TRANSPORTATION CHARGES:											
12	SUBCOMPACT	552.	587.	625.	666.	713.	764.	819.	876.	941.	1011.	1087.
13	COMPACT	552.	587.	625.	666.	713.	764.	819.	876.	941.	1011.	1087.
14	LUXURY	552.	587.	625.	666.	713.	764.	819.	876.	941.	1011.	1087.
15												
16	BASE PRICES:											
17	SUBCOMPACT	8473.	8848.	9241.	9651.	10081.	10531.	11002.	11486.	11991.	12520.	13073.
18	COMPACT	14844.	15549.	16290.	17069.	17888.	18748.	19651.	20583.	21561.	22588.	23666.
19	LUXURY	38087.	40890.	43450.	46176.	49079.	52171.	55464.	58905.	62565.	66459.	70601.

MARCH CONTROL FORECAST TO 2000

TABLE 12.10 GROWTH RATES, FOREIGN AUTO PRICES

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	TOTAL AUTO PRICES:											
2	SUBCOMPACT	4.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.1
3	COMPACT	5.0	5.1	5.1	5.1	5.1	5.1	5.2	5.1	5.1	5.1	5.1
4	LUXURY	6.2	6.3	6.3	6.3	6.4	6.4	6.4	6.3	6.3	6.3	6.3
5												
6	STATE AND LOCAL TAXES:											
7	SUBCOMPACT	7.4	7.6	7.6	7.6	7.5	7.5	7.5	7.5	7.5	7.5	7.5
8	COMPACT	7.6	7.7	7.7	7.7	7.7	7.7	7.7	7.6	7.6	7.6	7.6
9	LUXURY	8.9	9.0	9.0	9.0	9.0	9.0	9.0	8.9	8.9	8.9	8.9
10												
11	TRANSPORTATION CHARGES:											
12	SUBCOMPACT	6.2	6.5	6.4	6.6	7.1	7.0	7.2	7.0	7.4	7.5	7.5
13	COMPACT	5.9	6.5	6.4	6.6	7.1	7.0	7.2	7.0	7.4	7.5	7.5
14	LUXURY	5.9	6.5	6.4	6.6	7.1	7.0	7.2	7.0	7.4	7.5	7.5
15												
16	BASE PRICES:											
17	SUBCOMPACT	4.4	4.4	4.4	4.4	4.5	4.5	4.5	4.4	4.4	4.4	4.4
18	COMPACT	4.7	4.8	4.8	4.8	4.8	4.8	4.8	4.7	4.8	4.8	4.8
19	LUXURY	6.2	6.2	6.3	6.3	6.3	6.3	6.3	6.2	6.2	6.2	6.2

TABLE 13.00 CAPITALIZED COSTS PER MILE (DOLLARS PER MILE)

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	AVG NOMINAL CAP. COST PER MILE	0.273	0.291	0.312	0.333	0.353	0.376	0.401	0.426	0.452	0.480	0.508
2												
3	AVG REAL CAP. COST PER MILE	0.162	0.160	0.160	0.160	0.160	0.160	0.161	0.163	0.164	0.166	0.168
4												
5	CAPITALIZED COST PER MILE BY SIZE:											
6	SUBCOMPACTS	0.221	0.237	0.254	0.273	0.291	0.311	0.330	0.352	0.374	0.397	0.421
7	COMPACTS	0.250	0.267	0.287	0.305	0.324	0.345	0.367	0.391	0.416	0.442	0.468
8	MID-SIZE	0.278	0.296	0.317	0.337	0.357	0.381	0.405	0.431	0.458	0.486	0.515
9	FULL SIZE	0.294	0.314	0.336	0.359	0.381	0.406	0.432	0.459	0.488	0.517	0.548
10	LUXURY	0.382	0.408	0.439	0.471	0.501	0.535	0.569	0.604	0.640	0.679	0.719
11												
12	CAP. COST PER MILE BY FOR/DOM:											
13	TOTAL DOMESTIC	0.276	0.294	0.316	0.337	0.358	0.381	0.406	0.433	0.460	0.488	0.517
14	SUBCOMPACT	0.219	0.230	0.248	0.265	0.283	0.302	0.322	0.343	0.366	0.389	0.413
15	COMPACT	0.248	0.265	0.284	0.303	0.322	0.343	0.365	0.389	0.414	0.440	0.466
16	LUXURY	0.370	0.396	0.425	0.454	0.483	0.515	0.546	0.580	0.614	0.650	0.688
17												
18	TOTAL FOREIGN	0.243	0.260	0.279	0.300	0.321	0.343	0.367	0.389	0.411	0.436	0.461
19	SUBCOMPACT	0.225	0.241	0.259	0.278	0.297	0.316	0.336	0.357	0.379	0.402	0.425
20	COMPACT	0.303	0.324	0.348	0.373	0.397	0.422	0.447	0.474	0.501	0.530	0.560
21	LUXURY	0.501	0.540	0.586	0.633	0.680	0.728	0.775	0.825	0.877	0.932	0.991

MARCH CONTROL FORECAST TO 2000

TABLE 13.10 GROWTH RATES, CAPITALIZED COSTS PER MILE

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	AVG NOMINAL CAP. COST PER MILE	8.2	6.6	7.2	6.7	6.2	6.5	6.4	6.4	6.2	6.0	5.9
2												
3	AVG REAL CAP. COST PER MILE	0.0	-0.8	0.1	-0.2	-0.3	0.3	0.6	0.9	1.0	1.1	1.1
4												
5	CAPITALIZED COST PER MILE BY SIZE:											
6	SUBCOMPACTS	9.0	7.0	7.5	7.3	6.7	6.7	6.4	6.5	6.3	6.1	6.0
7	COMPACTS	7.7	6.9	7.2	6.5	6.2	6.4	6.5	6.5	6.3	6.2	6.1
8	MID-SIZE	8.4	6.5	7.2	6.4	6.0	6.5	6.4	6.4	6.2	6.1	6.0
9	FULL SIZE	8.2	6.8	7.3	6.7	6.2	6.6	6.3	6.3	6.2	6.0	5.9
10	LUXURY	7.5	6.9	7.6	7.1	6.5	6.6	6.4	6.2	6.0	6.0	5.9
11												
12	CAP. COST PER MILE BY FOR/DOM:											
13	TOTAL DOMESTIC	8.4	6.7	7.3	6.7	6.2	6.6	6.4	6.5	6.3	6.1	6.0
14	SUBCOMPACT	8.8	7.0	7.4	7.1	6.6	6.7	6.6	6.8	6.6	6.3	6.2
15	COMPACT	7.7	6.9	7.3	6.6	6.2	6.5	6.6	6.5	6.4	6.2	6.1
16	LUXURY	8.1	6.9	7.4	6.8	6.3	6.5	6.1	6.1	6.0	5.9	5.8
17												
18	TOTAL FOREIGN	8.1	6.9	7.6	7.5	7.0	6.7	7.0	6.1	5.8	5.9	5.8
19	SUBCOMPACT	9.2	7.0	7.5	7.4	6.8	6.6	6.3	6.3	6.1	6.0	5.9
20	COMPACT	9.2	6.8	7.4	7.2	6.5	6.3	6.0	5.9	5.8	5.8	5.7
21	LUXURY	10.4	7.7	8.5	8.1	7.3	7.1	6.5	6.4	6.3	6.3	6.3

TABLE 13.00 CAPITALIZED COSTS PER MILE (DOLLARS PER MILE)

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	AVG NOMINAL CAP. COST PER MILE	0.537	0.569	0.602	0.637	0.674	0.712	0.750	0.795	0.839	0.886	0.936
2												
3	AVG REAL CAP. COST PER MILE	0.170	0.172	0.174	0.176	0.177	0.179	0.181	0.183	0.186	0.187	0.190
4												
5	CAPITALIZED COST PER MILE BY SIZE:											
6	SUBCOMPACTS	0.446	0.472	0.500	0.530	0.561	0.593	0.628	0.664	0.701	0.741	0.784
7	COMPACTS	0.496	0.526	0.557	0.590	0.625	0.662	0.701	0.741	0.783	0.827	0.875
8	MID-SIZE	0.545	0.576	0.610	0.645	0.683	0.722	0.765	0.807	0.852	0.899	0.950
9	FULL SIZE	0.580	0.613	0.649	0.686	0.726	0.768	0.812	0.857	0.904	0.954	1.007
10	LUXURY	0.761	0.806	0.853	0.901	0.950	1.003	1.060	1.119	1.180	1.244	1.310
11												
12	CAP. COST PER MILE BY FOR/DOM:											
13	TOTAL DOMESTIC	0.507	0.580	0.614	0.650	0.688	0.728	0.770	0.813	0.858	0.906	0.957
14	SUBCOMPACT	0.438	0.465	0.494	0.524	0.555	0.588	0.624	0.660	0.698	0.738	0.781
15	COMPACT	0.494	0.524	0.555	0.588	0.623	0.660	0.700	0.739	0.781	0.826	0.873
16	LUXURY	0.727	0.768	0.812	0.857	0.906	0.956	1.011	1.065	1.122	1.183	1.248
17												
18	TOTAL FOREIGN	0.488	0.517	0.548	0.578	0.609	0.643	0.679	0.719	0.759	0.802	0.844
19	SUBCOMPACT	0.450	0.476	0.503	0.532	0.563	0.596	0.630	0.665	0.703	0.743	0.785
20	COMPACT	0.592	0.625	0.660	0.698	0.737	0.778	0.823	0.868	0.916	0.966	1.020
21	LUXURY	1.052	1.117	1.187	1.262	1.340	1.424	1.515	1.606	1.703	1.808	1.921

MARCH CONTROL FORECAST TO 2000

TABLE 13.10 GROWTH RATES, CAPITALIZED COSTS PER MILE

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	AVG NOMINAL CAP. COST PER MILE	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.5	5.6	5.6	5.6
2												
3	AVG REAL CAP. COST PER MILE	1.0	1.1	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.2
4												
5	CAPITALIZED COST PER MILE BY SIZE:											
6	SUBCOMPACTS	5.9	5.9	5.9	5.9	5.8	5.8	5.9	5.6	5.7	5.7	5.7
7	COMPACTS	5.9	6.0	5.9	5.9	5.9	5.9	6.0	5.6	5.7	5.7	5.7
8	MID-SIZE	5.8	5.9	5.8	5.8	5.8	5.8	5.8	5.5	5.6	5.6	5.6
9	FULL SIZE	5.8	5.8	5.8	5.7	5.8	5.7	5.8	5.5	5.5	5.5	5.6
10	LUXURY	5.9	5.8	5.9	5.6	5.5	5.5	5.7	5.6	5.4	5.4	5.3
11												
12	CAP. COST PER MILE BY FOR/DOM:											
13	TOTAL DOMESTIC	5.8	5.9	5.9	5.9	5.9	5.8	5.8	5.5	5.6	5.6	5.7
14	SUBCOMPACT	6.1	6.1	6.1	6.1	6.0	6.0	6.0	5.7	5.8	5.8	5.8
15	COMPACT	6.0	6.0	6.0	5.9	6.0	5.9	6.0	5.7	5.7	5.7	5.8
16	LUXURY	5.6	5.7	5.7	5.6	5.7	5.6	5.7	5.4	5.4	5.4	5.5
17												
18	TOTAL FOREIGN	6.0	5.8	5.9	5.5	5.4	5.6	5.7	5.8	5.6	5.6	5.4
19	SUBCOMPACT	5.7	5.8	5.8	5.8	5.7	5.8	5.8	5.6	5.6	5.7	5.7
20	COMPACT	5.6	5.7	5.6	5.6	5.6	5.7	5.8	5.5	5.5	5.6	5.6
21	LUXURY	6.1	6.2	6.2	6.3	6.2	6.2	6.4	6.1	6.1	6.2	6.2

TABLE 14.00 MILES PER GALLON (WEFA)

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	OVERALL FLEET MILES PER GALLON	13.94	14.23	14.62	15.13	15.71	16.36	17.05	17.69	18.28	18.80	19.30
2												
3	NEW AUTO MILES PER GALLON:											
4	TOTAL DOMESTIC AND FOREIGN	14.51	15.13	16.02	17.12	18.26	19.05	19.36	19.33	19.30	19.27	19.23
5	SUBCOMPACT	19.81	20.38	21.15	21.95	22.85	23.63	24.05	24.01	23.96	23.88	23.80
6	COMPACT	15.31	15.81	16.71	17.88	19.06	19.89	20.20	20.17	20.13	20.06	19.99
7	MID-SIZE	13.17	13.91	14.81	16.10	17.40	18.19	18.44	18.41	18.36	18.30	18.24
8	FULL SIZE	12.39	12.98	13.87	14.97	16.18	16.97	17.29	17.26	17.22	17.16	17.10
9	LUXURY	11.85	12.31	13.13	14.03	14.89	15.57	15.89	15.86	15.82	15.77	15.71
10												
11	TOTAL DOMESTIC	13.72	14.33	15.24	16.40	17.61	18.41	18.74	18.69	18.64	18.58	18.52
12	SUBCOMPACT	18.44	19.09	20.09	21.19	22.47	23.47	24.18	24.15	24.10	24.02	23.94
13	COMPACT	15.22	15.72	16.64	17.84	19.05	19.89	20.21	20.18	20.13	20.06	20.00
14	LUXURY	11.97	12.03	12.86	13.76	14.64	15.32	15.63	15.60	15.56	15.51	15.45
15												
16	TOTAL FOREIGN	20.36	20.83	21.39	21.97	22.57	23.20	23.40	23.39	23.36	23.30	23.24
17	SUBCOMPACT	20.86	21.33	21.90	22.49	23.10	23.74	23.97	23.93	23.88	23.81	23.73
18	COMPACT	17.77	18.11	18.53	18.96	19.41	19.88	20.00	19.97	19.92	19.86	19.79
19	LUXURY	15.95	16.35	16.84	17.35	17.89	18.43	18.65	18.62	18.58	18.52	18.45

MARCH CONTROL FORECAST TO 2000

TABLE 14.10 NEW AUTO MILES PER GALLON (EPA)

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	TOTAL DOMESTIC AND FOREIGN	20.38	21.46	22.82	24.67	26.58	27.64	28.04	28.04	28.06	28.09	28.11
2	SUBCOMPACT	25.63	26.67	28.03	29.56	30.99	32.26	32.85	32.82	32.78	32.76	32.73
3	COMPACT	21.19	22.22	23.62	25.61	27.71	28.87	29.32	29.32	29.33	29.33	29.33
4	MID-SIZE	19.04	20.20	21.47	23.48	25.66	26.68	27.06	27.06	27.06	27.06	27.06
5	FULL SIZE	18.03	19.06	20.42	22.27	24.27	25.21	25.54	25.54	25.54	25.54	25.54
6	LUXURY	17.16	18.08	19.47	21.11	22.64	23.50	23.81	23.81	23.81	23.81	23.81
7												
8	TOTAL DOMESTIC	19.57	20.66	22.04	23.99	26.05	27.09	27.51	27.48	27.48	27.49	27.49
9	SUBCOMPACT	24.68	25.97	27.64	29.71	31.97	33.37	34.32	34.32	34.32	34.32	34.32
10	COMPACT	21.15	22.20	23.62	25.64	27.80	28.96	29.40	29.40	29.40	29.40	29.40
11	LUXURY	16.91	17.84	19.25	20.94	22.52	23.37	23.65	23.65	23.65	23.65	23.65
12												
13	TOTAL FOREIGN	25.69	26.52	27.65	28.80	29.69	30.89	31.22	31.24	31.28	31.29	31.31
14	SUBCOMPACT	26.31	27.15	28.30	29.46	30.37	31.58	31.94	31.94	31.94	31.94	31.94
15	COMPACT	22.21	22.84	23.73	24.62	25.29	26.21	26.41	26.41	26.41	26.41	26.41
16	LUXURY	20.35	21.08	22.05	23.06	23.87	24.91	25.28	25.28	25.28	25.28	25.28

TABLE 10.00 MILES PER GALLON (WEFA)

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	OVERALL FLEET MILES PER GALLON	19.73	20.11	20.40	20.59	20.70	20.78	20.84	20.90	20.92	20.93	20.92
2												
3	NEW AUTO MILES PER GALLON:											
4	TOTAL DOMESTIC AND FOREIGN	19.19	19.16	19.13	19.09	19.06	19.03	19.00	18.97	18.92	18.88	18.84
5	SUBCOMPACT	23.73	23.68	23.62	23.57	23.52	23.47	23.41	23.35	23.29	23.24	23.19
6	COMPACT	19.93	19.88	19.83	19.79	19.75	19.70	19.65	19.60	19.54	19.49	19.45
7	MID-SIZE	18.18	18.13	18.08	18.04	18.00	17.96	17.91	17.86	17.81	17.76	17.72
8	FULL SIZE	17.04	16.99	16.95	16.91	16.87	16.83	16.79	16.74	16.69	16.65	16.61
9	LUXURY	15.67	15.63	15.60	15.55	15.50	15.45	15.40	15.37	15.32	15.27	15.22
10												
11	TOTAL DOMESTIC	18.47	18.42	18.38	18.33	18.29	18.24	18.21	18.17	18.12	18.08	18.03
12	SUBCOMPACT	23.87	23.81	23.76	23.71	23.66	23.60	23.55	23.49	23.43	23.37	23.32
13	COMPACT	19.93	19.88	19.84	19.79	19.75	19.70	19.65	19.60	19.55	19.50	19.45
14	LUXURY	15.40	15.35	15.32	15.28	15.24	15.20	15.16	15.12	15.07	15.03	14.99
15												
16	TOTAL FOREIGN	23.17	23.12	23.07	23.04	23.02	22.98	22.94	22.88	22.83	22.78	22.75
17	SUBCOMPACT	23.66	23.61	23.56	23.51	23.46	23.40	23.35	23.29	23.23	23.18	23.13
18	COMPACT	19.73	19.68	19.63	19.59	19.54	19.49	19.44	19.39	19.34	19.29	19.24
19	LUXURY	18.39	18.34	18.30	18.26	18.22	18.17	18.12	18.07	18.02	17.98	17.93

MARCH CONTROL FORECAST TO 2000

TABLE 10.10 NEW AUTO MILES PER GALLON (EPA)

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	TOTAL DOMESTIC AND FOREIGN	28.14	28.16	28.17	28.18	28.19	28.21	28.23	28.25	28.26	28.27	28.27
2	SUBCOMPACT	32.72	32.70	32.69	32.67	32.66	32.65	32.65	32.64	32.64	32.64	32.63
3	COMPACT	29.34	29.34	29.35	29.35	29.36	29.36	29.36	29.37	29.37	29.37	29.37
4	MID-SIZE	27.06	27.06	27.06	27.06	27.06	27.06	27.06	27.06	27.06	27.06	27.06
5	FULL SIZE	25.54	25.54	25.54	25.54	25.54	25.54	25.54	25.54	25.54	25.54	25.54
6	LUXURY	23.82	23.82	23.82	23.82	23.81	23.81	23.80	23.81	23.81	23.80	23.80
7												
8	TOTAL DOMESTIC	27.51	27.51	27.51	27.50	27.50	27.51	27.52	27.53	27.54	27.55	27.54
9	SUBCOMPACT	34.32	34.32	34.32	34.32	34.32	34.32	34.32	34.32	34.32	34.32	34.32
10	COMPACT	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40
11	LUXURY	23.65	23.65	23.65	23.65	23.65	23.65	23.65	23.65	23.65	23.65	23.65
12												
13	TOTAL FOREIGN	31.30	31.31	31.32	31.34	31.37	31.39	31.41	31.41	31.42	31.43	31.45
14	SUBCOMPACT	31.94	31.94	31.94	31.94	31.94	31.94	31.94	31.94	31.94	31.94	31.94
15	COMPACT	26.41	26.41	26.41	26.41	26.41	26.41	26.41	26.41	26.41	26.41	26.41
16	LUXURY	25.28	25.28	25.28	25.28	25.28	25.28	25.28	25.28	25.28	25.28	25.28

TABLE 15.00 GROWTH RATES, MILES PER GALLON (NEFA)

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	OVERALL FLEET MILES PER GALLON	1.35	2.08	2.76	3.45	3.87	4.14	4.22	3.75	3.29	2.89	2.66
2												
3	NEW AUTO MILES PER GALLON											
4	TOTAL DOMESTIC AND FOREIGN	5.4	4.3	5.9	6.9	6.7	4.3	1.6	-0.2	-0.1	-0.2	-0.2
5	SUBCOMPACT	2.1	2.9	3.8	3.8	4.1	3.4	1.8	-0.2	-0.2	-0.3	-0.3
6	COMPACT	9.1	3.2	5.7	7.0	6.6	4.3	1.6	-0.2	-0.2	-0.3	-0.3
7	MID-SIZE	5.3	5.6	6.5	8.7	8.1	4.5	1.4	-0.2	-0.2	-0.3	-0.4
8	FULL SIZE	7.1	4.7	6.9	7.9	8.1	4.9	1.9	-0.2	-0.2	-0.3	-0.4
9	LUXURY	6.3	3.9	6.7	6.8	6.2	4.6	2.0	-0.2	-0.3	-0.3	-0.4
10												
11	TOTAL DOMESTIC	6.4	4.5	6.3	7.6	7.4	4.6	1.8	-0.3	-0.3	-0.3	-0.3
12	SUBCOMPACT	3.0	3.5	5.2	5.4	6.1	4.5	3.0	-0.2	-0.2	-0.3	-0.3
13	COMPACT	9.5	3.3	5.9	7.2	6.8	4.4	1.6	-0.2	-0.2	-0.3	-0.3
14	LUXURY	7.5	4.0	6.9	7.1	6.4	4.7	2.0	-0.2	-0.3	-0.4	-0.4
15												
16	TOTAL FOREIGN	1.6	2.3	2.7	2.7	2.7	2.8	0.9	-0.1	-0.1	-0.3	-0.3
17	SUBCOMPACT	1.3	2.3	2.7	2.7	2.7	2.7	1.0	-0.1	-0.2	-0.3	-0.3
18	COMPACT	1.2	1.9	2.3	2.3	2.4	2.4	0.6	-0.2	-0.2	-0.3	-0.3
19	LUXURY	2.0	2.5	3.0	3.0	3.1	3.0	1.2	-0.2	-0.2	-0.3	-0.4

MARCH CONTROL FORECAST TO 2000

TABLE 15.10 GROWTH RATES, NEW AUTO MILES PER GALLON (EPA)

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	TOTAL DOMESTIC AND FOREIGN	5.7	5.3	6.4	8.1	7.8	4.0	1.5	-0.0	0.1	0.1	0.1
2	SUBCOMPACT	2.5	4.0	5.1	5.4	4.8	4.1	1.8	-0.1	-0.1	-0.1	-0.1
3	COMPACT	8.7	4.9	6.3	8.4	8.2	4.2	1.5	0.0	0.0	0.0	0.0
4	MID-SIZE	5.3	6.1	6.3	9.4	9.3	4.0	1.4	0.0	0.0	0.0	0.0
5	FULL SIZE	7.6	5.7	7.2	9.1	9.0	3.9	1.3	0.0	0.0	0.0	0.0
6	LUXURY	7.1	5.4	7.7	8.5	7.2	3.8	1.3	0.0	-0.0	0.0	0.0
7												
8	TOTAL DOMESTIC	6.6	5.6	6.7	8.8	8.6	4.0	1.5	-0.1	-0.0	0.0	0.0
9	SUBCOMPACT	3.3	5.2	6.4	7.5	7.6	4.4	2.8	0.0	0.0	0.0	0.0
10	COMPACT	9.0	5.0	6.4	8.6	8.4	4.2	1.5	0.0	0.0	0.0	0.0
11	LUXURY	8.0	5.5	7.9	8.8	7.5	3.8	1.2	0.0	0.0	0.0	0.0
12												
13	TOTAL FOREIGN	2.2	3.2	4.3	4.2	3.1	4.0	1.1	0.1	0.1	0.0	0.1
14	SUBCOMPACT	1.9	3.2	4.2	4.1	3.1	4.0	1.1	0.0	0.0	0.0	0.0
15	COMPACT	1.8	2.8	3.9	3.8	2.7	3.6	0.8	0.0	0.0	0.0	0.0
16	LUXURY	2.5	3.5	4.6	4.6	3.5	4.3	1.5	0.0	0.0	0.0	0.0

TABLE 15.00 GROWTH RATES, MILES PER GALLON (WEFA)

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	OVERALL FLEET MILES PER GALLON	2.23	1.89	1.46	0.94	0.52	0.39	0.30	0.27	0.10	0.03	-0.05
2												
3	NEW AUTO MILES PER GALLON:											
4	TOTAL DOMESTIC AND FOREIGN	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
5	SUBCOMPACT	-0.3	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.3	-0.2	-0.2
6	COMPACT	-0.3	-0.3	-0.2	-0.2	-0.2	-0.3	-0.2	-0.3	-0.3	-0.3	-0.2
7	MID-SIZE	-0.3	-0.3	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.2
8	FULL SIZE	-0.3	-0.3	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.2
9	LUXURY	-0.3	-0.3	-0.2	-0.3	-0.3	-0.1	-0.3	-0.2	-0.3	-0.3	-0.3
10												
11	TOTAL DOMESTIC	-0.3	-0.3	-0.2	-0.3	-0.2	-0.2	-0.2	-0.2	-0.3	-0.2	-0.2
12	SUBCOMPACT	-0.3	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.3	-0.3	-0.2	-0.2
13	COMPACT	-0.3	-0.3	-0.2	-0.2	-0.2	-0.3	-0.2	-0.3	-0.3	-0.3	-0.2
14	LUXURY	-0.3	-0.3	-0.3	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
15												
16	TOTAL FOREIGN	-0.3	-0.2	-0.2	-0.1	-0.1	-0.2	-0.2	-0.3	-0.2	-0.2	-0.1
17	SUBCOMPACT	-0.3	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.3	-0.2	-0.2
18	COMPACT	-0.3	-0.3	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.2
19	LUXURY	-0.3	-0.3	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.2

MARCH CONTROL FORECAST TO 2000

TABLE 15.10 GROWTH RATES, NEW AUTO MILES PER GALLON (EPA)

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	TOTAL DOMESTIC AND FOREIGN	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0
2	SUBCOMPACT	-0.0	-0.1	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	0.0	-0.0
3	COMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	MID-SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	FULL SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	LUXURY	0.0	0.0	0.0	-0.0	-0.0	-0.0	-0.0	0.0	-0.0	-0.0	-0.0
7												
8	TOTAL DOMESTIC	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0
9	SUBCOMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	COMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	LUXURY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12												
13	TOTAL FOREIGN	-0.0	0.0	0.0	0.1	0.1	0.1	0.1	-0.0	0.0	0.0	0.1
14	SUBCOMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	COMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	LUXURY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 16.00 USED CAR MARKET

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	AVERAGE WHOLESALE PRICE DOLLARS	3428.	3714.	4013.	4321.	4653.	5001.	5356.	5726.	6107.	6483.	6884.
2												
3	PRICE OF 1 YR OLD CAR/NEW CAR (%)											
4	SUBCOMPACT	79.65	80.85	81.20	80.76	80.42	80.38	80.06	79.76	79.94	80.44	80.76
5	COMPACT	70.52	71.30	71.85	71.11	70.66	70.53	70.03	69.58	69.78	70.42	70.77
6	MID-SIZE	64.37	65.41	65.66	65.46	65.06	64.96	64.76	64.42	64.60	65.11	65.47
7	FULL SIZE	59.56	63.54	64.41	63.78	62.35	62.25	61.92	60.76	61.40	63.41	64.84
8	LUXURY	70.17	71.96	72.42	71.94	71.08	71.02	70.58	70.01	70.47	71.55	72.44
9												
10	TOTAL USED CARS PURCHASED MILL AUTOS	15,817	17,004	17,955	18,009	17,589	17,840	18,239	18,050	18,442	19,205	20,060

TABLE 16.10 GROWTH RATES, USED CAR MARKET

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	AVERAGE WHOLESALE PRICE DOLLARS	10.46	8.34	8.06	7.68	7.67	7.48	7.10	6.92	6.65	6.16	5.97
2												
3	PRICE OF 1 YR OLD CAR/NEW CAR (%)											
4	SUBCOMPACT	0.60	1.52	0.43	-0.54	-0.43	-0.05	-0.40	-0.38	0.23	0.63	0.39
5	COMPACT	1.54	1.10	0.78	-1.03	-0.64	-0.18	-0.71	-0.69	0.33	0.93	0.49
6	MID-SIZE	2.09	1.61	0.39	-0.30	-0.62	-0.16	-0.30	-0.53	0.28	0.79	0.55
7	FULL SIZE	7.02	6.68	1.38	-1.04	-2.19	-0.16	-0.53	-1.88	1.05	3.28	2.25
8	LUXURY	6.10	2.55	0.65	-0.67	-1.20	-0.08	-0.67	-0.75	0.66	1.52	1.25
9												
10	TOTAL USED CARS PURCHASED MILL AUTOS	8.29	7.50	5.59	0.30	-2.33	1.43	2.24	-1.04	2.18	4.14	4.45

TABLE 16.00 USED CAR MARKET

LINE	ITEM		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	AVERAGE WHOLESALE PRICE	DOLLARS	7222.	7634.	8095.	8603.	9147.	9704.	10276.	10855.	11478.	12127.	12822.
2													
3	PRICE OF 1 YR OLD CAR/NEW CAR (%)												
4	SUBCOMPACT		80.84	80.68	80.38	80.05	80.08	80.23	80.34	80.37	80.28	80.24	80.21
5	COMPACT		70.82	70.64	70.22	69.85	69.94	70.09	70.24	70.14	70.11	70.06	70.08
6	MID-SIZE		65.51	65.39	65.09	64.82	64.81	64.98	65.09	65.10	65.05	65.04	65.02
7	FULL SIZE		65.06	64.97	63.43	62.40	62.30	63.01	63.46	63.59	63.34	63.35	63.20
8	LUXURY		72.40	72.22	71.46	71.04	71.04	71.41	71.66	71.90	71.91	71.53	71.99
9													
10	TOTAL USED CARS PURCHASED	MILL AUTOS	20,293	20,557	20,966	20,590	20,788	21,490	21,933	22,446	22,671	23,038	23,406

TABLE 16.10 GROWTH RATES, USED CAR MARKET

LINE	ITEM		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	AVERAGE WHOLESALE PRICE	DOLLARS	5.52	5.71	6.04	6.27	6.33	6.08	5.90	5.63	5.74	5.66	5.72
2													
3	PRICE OF 1 YR OLD CAR/NEW CAR (%)												
4	SUBCOMPACT		0.09	-0.20	-0.37	-0.40	0.03	0.19	0.14	0.03	-0.12	-0.05	-0.04
5	COMPACT		0.08	-0.26	-0.59	-0.54	0.13	0.22	0.22	-0.14	-0.04	-0.07	0.04
6	MID-SIZE		0.07	-0.18	-0.47	-0.40	-0.03	0.27	0.17	0.02	-0.08	-0.01	-0.03
7	FULL SIZE		0.35	-0.75	-1.77	-1.63	-0.16	1.14	0.71	0.22	-0.39	0.01	-0.24
8	LUXURY		-0.05	-0.26	-1.05	-0.59	-0.00	0.52	0.39	-0.21	0.01	0.03	0.09
9													
10	TOTAL USED CARS PURCHASED	MILL AUTOS	1.17	1.30	0.04	0.12	0.96	3.37	2.06	2.34	1.01	1.62	1.60

TABLE 17.00 DEMOGRAPHIC VARIABLES

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	NUMBER OF FAMILIES MILL FAMILIES	59,268	60,260	61,275	62,312	63,316	64,287	65,201	66,099	66,970	67,817	68,668
2	NUMBER OF UNREL. INDIVIDUALS MILL PERS	22,122	22,682	23,244	23,782	24,323	24,861	25,404	25,901	26,391	26,876	27,372
3												
4	PERCENT OF FAMILIES WITH 3 OR 4 PERS.	30,94	31,18	31,32	31,47	31,61	31,65	31,79	31,79	31,83	31,87	31,91
5	PERCENT OF FAMILIES WITH 5+ PERSONS	13,01	12,24	11,68	11,12	10,56	10,21	9,65	9,37	9,02	8,67	8,32
6												
7	PERSONS 20 TO 29 PER FAMILY	0,478	0,477	0,475	0,471	0,466	0,459	0,450	0,439	0,426	0,411	0,394
8	NUMBER OF LICENSED DRIVERS MILL PERS	144,31	147,20	149,95	152,48	154,88	157,17	159,45	161,76	164,11	166,16	167,97
9												
10	PERCENT OF POPULATION:											
11	IN METROPOLITAN AREAS	73,27	73,27	73,27	73,27	73,27	73,27	73,27	73,27	73,27	73,27	73,27
12	IN NEW ENGLAND REGION	5,66	5,64	5,63	5,62	5,60	5,59	5,57	5,56	5,55	5,53	5,52
13	IN SOUTH ATLANTIC REGION	15,68	15,64	15,60	15,56	15,52	15,48	15,44	15,40	15,36	15,32	15,28
14	IN EAST NORTH CENTRAL REGION	19,28	19,34	19,41	19,47	19,53	19,59	19,66	19,72	19,78	19,84	19,91
15	IN EAST SOUTH CENTRAL REGION	6,08	6,01	5,94	5,87	5,81	5,74	5,67	5,61	5,54	5,48	5,41
16	IN MOUNTAIN REGION	4,88	4,98	5,08	5,18	5,28	5,39	5,50	5,61	5,72	5,83	5,95
17	IN PACIFIC REGION	13,70	13,81	13,91	14,01	14,12	14,23	14,33	14,44	14,55	14,66	14,77
18	IN WEST NORTH CENTRAL REGION	7,71	7,67	7,64	7,61	7,58	7,55	7,52	7,49	7,46	7,43	7,40
19	IN WEST SOUTH CENTRAL REGION	10,08	10,14	10,20	10,26	10,32	10,39	10,45	10,51	10,57	10,64	10,70
20												
21	GROWTH RATES:											
22	PASSENGERS / EMPLOYMENT	0,97	0,97	0,97	0,97	0,97	0,97	0,97	0,97	0,97	0,97	0,97
23	PASS / PUBLIC TRANSIT M.T.W.	0,99	0,99	0,99	0,99	0,99	0,99	0,99	0,99	0,99	0,99	0,99
24	OTHER M.T.W. / EMPLOYMENT	0,94	0,94	0,94	0,94	0,94	0,94	0,94	0,94	0,94	0,94	0,94

MARCH CONTROL FORECAST TO 2000

TABLE 17.10 GROWTH RATES, DEMOGRAPHIC VARIBLES

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	NUMBER OF FAMILIES MILL FAMILIES	1,7	1,7	1,7	1,7	1,6	1,5	1,4	1,4	1,3	1,3	1,3
2	NUMBER OF UNREL. INDIVIDUALS MILL PERS	2,6	2,5	2,5	2,3	2,3	2,2	2,2	2,0	1,9	1,8	1,8
3												
4	PERCENT OF FAMILIES WITH 3 OR 4 PERS.	0,4	0,8	0,4	0,5	0,4	0,1	0,4	0,0	0,1	0,1	0,1
5	PERCENT OF FAMILIES WITH 5+ PERSONS	-4,1	-5,9	-4,6	-4,8	-5,0	-3,3	-5,5	-2,9	-3,7	-3,9	-4,0
6												
7	PERSONS 20 TO 29 PER FAMILY	-0,2	-0,2	-0,4	-0,8	-1,1	-1,4	-1,9	-2,5	-3,0	-3,6	-4,0
8	NUMBER OF LICENSED DRIVERS MILL PERS	2,20	2,00	1,87	1,69	1,58	1,48	1,45	1,45	1,45	1,24	1,10
9												
10	PERCENT OF POPULATION:											
11	IN METROPOLITAN AREAS	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
12	IN NEW ENGLAND REGION	-0,3	-0,2	-0,2	-0,3	-0,3	-0,2	-0,3	-0,3	-0,3	-0,3	-0,2
13	IN SOUTH ATLANTIC REGION	-0,3	-0,3	-0,3	-0,3	-0,3	-0,3	-0,3	-0,3	-0,3	-0,3	-0,3
14	IN EAST NORTH CENTRAL REGION	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3
15	IN EAST SOUTH CENTRAL REGION	-1,2	-1,2	-1,2	-1,2	-1,2	-1,2	-1,2	-1,2	-1,2	-1,2	-1,2
16	IN MOUNTAIN REGION	2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0
17	IN PACIFIC REGION	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,7
18	IN WEST NORTH CENTRAL REGION	-0,4	-0,4	-0,4	-0,4	-0,4	-0,4	-0,4	-0,4	-0,4	-0,4	-0,4
19	IN WEST SOUTH CENTRAL REGION	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6

TABLE 17.00 DEMOGRAPHIC VARIABLES

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	NUMBER OF FAMILIES MILL FAMILIES	69,483	70,310	71,147	71,993	72,850	73,717	74,594	75,482	76,380	77,289	78,209
2	NUMBER OF UNREL. INDIVIDUALS MILL PERS	27,870	28,355	28,848	29,350	29,861	30,381	30,909	31,447	31,994	32,551	33,117
3												
4	PERCENT OF FAMILIES WITH 3 OR 4 PERS.	31.94	32.02	32.08	32.14	32.21	32.29	32.37	32.46	32.56	32.66	32.77
5	PERCENT OF FAMILIES WITH 5+ PERSONS	7.97	7.73	7.50	7.30	7.11	6.94	6.78	6.50	6.38	6.30	6.26
6												
7	PERSONS 20 TO 29 PER FAMILY	0.383	0.373	0.364	0.351	0.337	0.327	0.318	0.310	0.305	0.300	0.293
8	NUMBER OF LICENSED DRIVERS MILL PERS	169.68	171.42	173.05	174.66	176.39	178.16	180.03	182.02	184.06	186.13	188.19
9												
10	PERCENT OF POPULATION:											
11	IN METROPOLITAN AREAS	73.27	73.27	73.27	73.27	73.27	73.27	73.27	73.27	73.27	73.27	73.27
12	IN NEW ENGLAND REGION	5.50	5.49	5.48	5.46	5.45	5.44	5.42	5.41	5.39	5.38	5.37
13	IN SOUTH ATLANTIC REGION	15.24	15.20	15.16	15.12	15.08	15.04	15.00	14.96	14.92	14.89	14.85
14	IN EAST NORTH CENTRAL REGION	19.97	20.03	20.10	20.16	20.23	20.29	20.36	20.42	20.49	20.55	20.62
15	IN EAST SOUTH CENTRAL REGION	5.35	5.29	5.23	5.17	5.11	5.05	4.99	4.93	4.87	4.82	4.76
16	IN MOUNTAIN REGION	6.07	6.19	6.31	6.44	6.57	6.70	6.84	6.97	7.11	7.25	7.40
17	IN PACIFIC REGION	14.88	14.99	15.10	15.21	15.33	15.44	15.56	15.68	15.79	15.91	16.03
18	IN WEST NORTH CENTRAL REGION	7.37	7.34	7.31	7.28	7.25	7.22	7.19	7.16	7.13	7.10	7.07
19	IN WEST SOUTH CENTRAL REGION	10.76	10.83	10.89	10.96	11.03	11.09	11.16	11.23	11.29	11.36	11.43
20												
21	GROWTH RATES:											
22	PASSENGERS / EMPLOYMENT	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
23	PASS / PUBLIC TRANSIT M.T.W.	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
24	OTHER M.T.W. / EMPLOYMENT	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94

MARCH CONTROL FORECAST TO 2000

TABLE 17.10 GROWTH RATES, DEMOGRAPHIC VARIBLES

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	NUMBER OF FAMILIES MILL FAMILIES	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
2	NUMBER OF UNREL. INDIVIDUALS MILL PERS	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
3												
4	PERCENT OF FAMILIES WITH 3 OR 4 PERS.	0.1	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
5	PERCENT OF FAMILIES WITH 5+ PERSONS	-4.2	-3.0	-3.0	-2.7	-2.6	-2.4	-2.3	-4.1	-1.8	-1.3	-0.6
6												
7	PERSONS 20 TO 29 PER FAMILY	-2.8	-2.7	-2.3	-3.7	-3.8	-3.1	-2.8	-2.3	-1.8	-1.5	-2.4
8	NUMBER OF LICENSED DRIVERS MILL PERS	1.02	1.02	0.99	0.94	0.99	1.00	1.05	1.10	1.12	1.12	1.11
9												
10	PERCENT OF POPULATION:											
11	IN METROPOLITAN AREAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	IN NEW ENGLAND REGION	-0.3	-0.3	-0.3	-0.2	-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2
13	IN SOUTH ATLANTIC REGION	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
14	IN EAST NORTH CENTRAL REGION	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
15	IN EAST SOUTH CENTRAL REGION	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2
16	IN MOUNTAIN REGION	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
17	IN PACIFIC REGION	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
18	IN WEST NORTH CENTRAL REGION	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4
19	IN WEST SOUTH CENTRAL REGION	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

TABLE 18.00 ECONOMIC VARIABLES

LINE	ITEM		1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	GENERAL												
2	PERSONAL INCOME	BILL CURR $	1881.01	2092.79	2263.40	2490.86	2723.59	2963.39	3230.52	3506.39	3789.11	4076.06	4391.82
3	PERSONAL INCOME TAXES	BILL CURR $	279.53	302.97	343.37	385.13	427.59	471.83	518.21	567.14	617.99	673.25	736.49
4	TRANSFER PAYMENTS	BILL CURR $	254.51	288.25	317.46	349.79	384.98	422.09	460.49	500.39	543.09	588.34	635.91
5													
6	REAL DISP. INCOME/FAMILY	THOU 72 $	9.81	9.72	9.76	9.82	9.85	9.88	10.00	10.12	10.22	10.29	10.40
7	FAMILIES WITH INCOME OVER $15,000												
8	IN 1970 $	PERCENT	25.09	25.24	25.63	25.74	25.74	25.91	26.29	26.77	27.41	28.20	29.06
9													
10	EMPLOYMENT	MILL PERSONS	96.38	97.73	99.67	101.42	102.94	104.33	105.89	107.51	109.10	110.48	111.96
11	UNEMPLOYMENT RATE		6.19	6.78	6.38	6.08	5.99	5.91	5.69	5.43	5.28	5.20	4.99
12													
13	CONSUMER INSTALL. CREDIT RATE,												
14	NEW AUTOS	PERCENT	12.44	12.33	12.41	12.52	12.12	11.94	11.76	11.62	11.48	11.44	11.52
15													
16	CONSUMER PRICE INDICES (1967=100)												
17	TOTAL		211.4	227.2	243.5	260.2	277.3	294.4	311.6	328.4	345.2	361.8	378.9
18	AUTO REPAIRS		267.7	291.3	317.0	344.6	373.1	402.2	431.6	461.0	490.7	520.7	551.3
19	AUTO INSURANCE PREMIUMS		263.5	291.2	325.6	361.5	400.3	440.6	481.3	523.8	570.1	617.4	666.8
20	TIRES		154.7	164.0	173.8	184.3	195.3	207.0	219.5	232.6	246.6	261.4	277.1
21	MOTOR OIL		192.7	206.6	222.1	237.8	253.9	269.9	285.8	301.5	317.3	332.9	348.9
22	PARKING FEES		261.6	284.0	309.0	336.8	366.3	397.1	428.3	460.0	492.8	526.8	561.6
23													
24	OTHER COSTS AND PRICES:												
25	NEW AUTO UNIT PRICE	THOU 72 $	4.70	4.73	4.81	4.94	5.08	5.21	5.30	5.39	5.46	5.54	5.61
26	NEW AUTOS PRICE INDEX	1972=100	148.1	157.9	167.2	174.5	181.7	189.2	197.6	206.2	215.3	225.9	232.6
27	DOM. AUTO INPUT PRICE INDEX	1972=100	158.3	168.7	181.2	193.3	205.9	218.9	231.5	244.2	257.2	270.5	283.8
28	IMPORTED GOODS PRICE INDEX	1972=100	213.1	227.6	244.3	261.1	278.6	296.0	312.1	328.9	345.9	363.9	382.6
29	TRANSPORTATION PRICE INDEX	1972=100	154.4	163.2	168.7	174.2	181.3	189.3	196.2	204.1	213.9	224.0	233.6
30													
31	AVG RETAIL PRICE OF GASOLINE	CENTS	73.01	77.49	83.29	89.22	95.26	101.26	107.25	113.17	119.10	125.13	131.39
32	EXCUDING TAXES	CENTS	60.21	64.49	70.11	75.87	81.73	87.55	93.34	99.06	104.79	110.62	116.68
33	FEDERAL TAX	CENTS	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
34	STATE AND LOCAL TAX	CENTS	8.80	9.00	9.18	9.35	9.53	9.71	9.91	10.11	10.31	10.51	10.71
35													
36	STEEL SCRAP PRICE	$/GROSS TON	85.22	89.49	93.96	98.66	103.59	108.77	114.21	119.92	125.91	132.21	138.82

TABLE 18.00 ECONOMIC VARIABLES

LINE	ITEM		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	GENERAL												
2	PERSONAL INCOME	BILL CURR $	4726.33	5100.54	5513.24	5961.04	6431.28	6939.60	7482.02	8078.19	8712.26	9398.84	10132.54
3	PERSONAL INCOME TAXES	BILL CURR $	804.43	875.39	955.03	1041.53	1131.39	1228.22	1334.31	1452.64	1578.84	1716.45	1863.88
4	TRANSFER PAYMENTS	BILL CURR $	687.70	745.68	806.10	870.44	943.36	1020.87	1105.87	1195.05	1292.13	1398.33	1511.61
5													
6	REAL DISP. INCOME/FAMILY	THOU 72 $	10.49	10.63	10.81	11.01	11.17	11.34	11.50	11.72	11.91	12.10	12.30
7	FAMILIES WITH INCOME OVER $15,000												
8	IN 1970 $	PERCENT	29.88	30.71	31.66	32.84	34.24	35.76	37.37	38.94	40.55	42.25	44.01
9													
10	EMPLOYMENT	MILL PERSONS	113.40	114.72	116.27	117.90	119.24	120.81	122.35	124.00	125.65	127.35	129.08
11	UNEMPLOYMENT RATE		4.81	4.82	4.59	4.30	4.33	4.22	4.22	4.21	4.22	4.23	4.19
12													
13	CONSUMER INSTALL. CREDIT RATE,												
14	NEW AUTOS	PERCENT	11.44	11.37	11.33	11.34	11.25	11.18	11.23	11.12	11.02	10.96	10.95
15													
16	CONSUMER PRICE INDICES (1967=100)												
17	TOTAL		396.8	415.6	434.8	454.5	475.7	497.7	520.6	543.2	566.9	592.3	618.4
18	AUTO REPAIRS		583.4	617.7	653.5	690.4	729.9	771.7	815.8	860.8	907.2	957.0	1009.3
19	AUTO INSURANCE PREMIUMS		720.5	779.8	841.5	907.6	981.2	1060.1	1143.6	1229.4	1324.1	1427.5	1535.1
20	TIRES		293.7	311.3	330.0	349.8	370.8	393.0	416.6	441.6	468.1	496.2	526.0
21	MOTOR OIL		365.6	383.3	401.4	419.9	439.8	460.3	481.9	503.1	525.3	549.0	573.4
22	PARKING FEES		598.0	636.7	677.8	720.8	766.6	815.9	867.8	921.6	977.9	1038.2	1101.9
23													
24	OTHER COSTS AND PRICES												
25	NEW AUTO UNIT PRICE	THOU 72 $	5.70	5.78	5.88	5.97	6.06	6.15	6.26	6.36	6.46	6.57	6.67
26	NEW AUTOS PRICE INDEX	1972=100	241.5	250.7	260.2	269.7	280.1	290.5	300.1	311.0	322.1	333.3	344.8
27	DOM. AUTO INPUT PRICE INDEX	1972=100	297.6	312.2	327.4	343.2	360.1	377.3	395.2	413.4	432.4	451.9	472.7
28	IMPORTED GOODS PRICE INDEX	1972=100	402.3	423.2	445.2	468.4	492.8	518.5	545.6	573.5	603.0	633.9	666.5
29	TRANSPORTATION PRICE INDEX	1972=100	243.2	254.1	265.5	277.6	291.2	305.4	320.7	336.3	353.4	371.7	391.0
30													
31	AVG RETAIL PRICE OF GASOLINE	CENTS	137.84	144.65	151.68	158.90	166.36	174.23	182.31	190.60	199.13	207.78	217.07
32	EXCUDING TAXES	CENTS	122.93	129.53	136.34	143.34	150.58	158.22	166.06	174.12	182.40	190.80	199.84
33	FEDERAL TAX	CENTS	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
34	STATE AND LOCAL TAX	CENTS	10.91	11.12	11.34	11.56	11.78	12.01	12.25	12.49	12.73	12.98	13.23
35													
36	STEEL SCRAP PRICE	$/GROSS TON	145.76	153.05	160.70	168.74	177.17	186.03	195.33	205.10	215.35	226.12	237.41

TABLE 19.00 GROWTH RATES, ECONOMIC VARIABLES

LINE	ITEM		1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	GENERAL												
2	PERSONAL INCOME	BILL CURR $	10.3	9.1	10.3	10.0	9.3	8.8	9.0	8.5	8.1	7.6	7.7
3	PERSONAL INCOME TAXES	BILL CURR $	9.5	8.4	13.3	12.2	11.0	10.3	9.8	9.4	9.0	8.9	9.4
4	TRANSFER PAYMENTS	BILL CURR $	12.3	13.3	10.1	10.2	10.1	9.6	9.1	8.7	8.5	8.3	8.1
5													
6	REAL DISP. INCOME/FAMILY	THOU 72 $	-0.2	-0.9	0.4	0.6	0.3	0.3	1.2	1.2	1.0	0.7	1.0
7	FAMILIES WITH INCOME OVER $15,000												
8	IN 1970 $	PERCENT	1.5	0.6	1.5	0.4	0.0	0.7	1.4	1.9	2.4	2.9	3.1
9													
10	EMPLOYMENT	MILL PERSONS	2.3	1.4	2.0	1.8	1.5	1.4	1.5	1.5	1.5	1.3	1.3
11	UNEMPLOYMENT RATE		2.3	9.6	-6.0	-4.6	-1.6	-1.2	-3.8	-4.4	-2.9	-1.4	-4.2
12													
13	CONSUMER INSTALL. CREDIT RATE,												
14	NEW AUTOS	PERCENT	4.1	-0.8	0.6	0.9	-3.2	-1.5	-1.5	-1.2	-1.2	-0.3	0.6
15													
16	CONSUMER PRICE INDICES (1967=100)												
17	TOTAL		8.2	7.5	7.2	6.9	6.6	6.2	5.8	5.4	5.1	4.8	4.7
18	AUTO REPAIRS		9.2	8.8	8.8	8.7	8.3	7.8	7.3	6.8	6.4	6.1	5.9
19	AUTO INSURANCE PREMIUMS		10.6	10.5	11.8	11.0	10.7	10.1	9.2	8.8	8.8	8.3	8.0
20	TIRES		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
21	MOTOR OIL		7.7	7.2	7.5	7.1	6.8	6.3	5.9	5.5	5.2	4.9	4.8
22	PARKING FEES		9.0	8.6	8.8	9.0	8.8	8.4	7.9	7.4	7.1	6.9	6.6
23													
24	OTHER COSTS AND PRICES												
25	NEW AUTO UNIT PRICE	THOU 72 $	0.8	0.5	1.8	2.6	2.8	2.6	1.8	1.6	1.3	1.4	1.4
26	NEW AUTOS PRICE INDEX	1972=100	7.0	6.6	5.9	4.4	4.1	4.1	4.5	4.3	4.4	4.0	3.8
27	DOM. AUTO INPUT PRICE INDEX	1972=100	7.1	6.6	7.4	6.7	6.5	6.3	5.8	5.5	5.3	5.1	4.9
28	IMPORTED GOODS PRICE INDEX	1972=100	8.6	6.8	7.4	6.9	6.7	6.2	5.4	5.4	5.2	5.2	5.1
29	TRANSPORTATION PRICE INDEX	1972=100	5.5	5.7	3.4	3.2	4.1	4.4	3.6	4.0	4.8	4.7	4.3
30													
31	AVG RETAIL PRICE OF GASOLINE	CENTS	11.8	6.1	7.5	7.1	6.8	6.3	5.9	5.5	5.2	5.1	5.0
32	EXCLUDING TAXES	CENTS	14.2	7.1	8.7	8.2	7.7	7.1	6.6	6.1	5.8	5.6	5.5
33	FEDERAL TAX	CENTS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34	STATE AND LOCAL TAX	CENTS	2.3	2.3	2.0	1.9	1.9	1.9	2.1	2.0	2.0	1.9	1.9
35													
36	STEEL SCRAP PRICE	$/GROSS TON	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0

TABLE 19.00 GROWTH RATES, ECONOMIC VARIABLES

LINE	ITEM		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	GENERAL												
2	PERSONAL INCOME	BILL CURR $	7.6	7.9	8.1	8.1	7.9	7.9	7.8	8.0	7.8	7.9	7.8
3	PERSONAL INCOME TAXES	BILL CURR $	9.2	8.8	9.1	9.1	8.6	8.6	8.6	8.9	8.7	8.7	8.6
4	TRANSFER PAYMENTS	BILL CURR $	8.1	8.4	8.1	8.0	8.4	8.2	8.3	8.1	8.1	8.2	8.1
5													
6	REAL DISP. INCOME/FAMILY	THOU 72 $	0.9	1.4	1.7	1.8	1.4	1.6	1.4	1.9	1.7	1.6	1.6
7	FAMILIES WITH INCOME OVER $15,000												
8	IN 1970 $	PERCENT	2.8	2.8	3.1	3.7	4.2	4.4	4.5	4.2	4.1	4.2	4.2
9													
10	EMPLOYMENT	MILL PERSONS	1.3	1.2	1.3	1.4	1.1	1.3	1.3	1.3	1.3	1.3	1.4
11	UNEMPLOYMENT RATE		-3.5	0.2	-4.8	-6.4	0.7	-2.6	-0.0	-0.2	0.4	0.1	-1.0
12													
13	CONSUMER INSTALL. CREDIT RATE,												
14	NEW AUTOS	PERCENT	-0.6	-0.6	-0.4	0.1	-0.8	-0.7	0.5	-1.0	-1.0	-0.5	-0.1
15													
16	CONSUMER PRICE INDICES (1967=100)												
17	TOTAL		4.7	4.7	4.6	4.5	4.7	4.6	4.6	4.3	4.4	4.5	4.4
18	AUTO REPAIRS		5.8	5.9	5.8	5.6	5.7	5.7	5.7	5.5	5.4	5.5	5.3
19	AUTO INSURANCE PREMIUMS		8.1	8.2	7.9	7.9	8.1	8.0	7.9	7.5	7.7	7.8	7.5
20	TIRES		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
21	MOTOR OIL		4.8	4.8	4.7	4.6	4.7	4.7	4.7	4.4	4.4	4.5	4.4
22	PARKING FEES		6.5	6.5	6.5	6.3	6.4	6.4	6.4	6.2	6.1	6.2	6.1
23													
24	OTHER COSTS AND PRICES												
25	NEW AUTO UNIT PRICE	THOU 72 $	1.5	1.6	1.6	1.6	1.5	1.5	1.9	1.5	1.6	1.6	1.6
26	NEW AUTOS PRICE INDEX	1972=100	3.9	3.8	3.8	3.6	3.8	3.7	3.3	3.6	3.6	3.5	3.5
27	DOM. AUTOS INPUT PRICE INDEX	1972=100	4.9	4.9	4.9	4.8	4.9	4.8	4.7	4.6	4.6	4.5	4.6
28	IMPORTED GOODS PRICE INDEX	1972=100	5.1	5.2	5.2	5.2	5.2	5.2	5.2	5.1	5.1	5.1	5.1
29	TRANSPORTATION PRICE INDEX	1972=100	4.1	4.5	4.5	4.6	4.9	4.9	5.0	4.9	5.1	5.2	5.2
30													
31	AVG RETAIL PRICE OF GASOLINE	CENTS	4.9	4.9	4.9	4.8	4.7	4.7	4.6	4.6	4.5	4.3	4.5
32	EXCLUDING TAXES	CENTS	5.4	5.4	5.3	5.1	5.1	5.1	5.0	4.9	4.8	4.6	4.7
33	FEDERAL TAX	CENTS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34	STATE AND LOCAL TAX	CENTS	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
35													
36	STEEL SCRAP PRICE	$/GROSS TON	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0

TABLE 20.00 AUTO CHARACTERISTICS

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
11	CURB WEIGHT (POUNDS):											
21	DOMESTIC SUBCOMPACT	2600.	2550.	2500.	2440.	2380.	2330.	2300.	2300.	2300.	2300.	2300.
31	FOREIGN SUBCOMPACT	2293.	2258.	2224.	2191.	2158.	2126.	2094.	2094.	2094.	2094.	2094.
41	DOMESTIC COMPACT	3100.	3050.	3000.	2900.	2800.	2750.	2700.	2700.	2700.	2700.	2700.
51	FOREIGN COMPACT	2865.	2837.	2808.	2780.	2752.	2725.	2698.	2698.	2698.	2698.	2698.
61	MID-SIZE	3550.	3450.	3400.	3250.	3100.	3050.	3000.	3000.	3000.	3000.	3000.
71	FULL SIZE	3800.	3700.	3600.	3450.	3300.	3250.	3200.	3200.	3200.	3200.	3200.
81	DOMESTIC LUXURY	4100.	4000.	3850.	3700.	3600.	3550.	3500.	3500.	3500.	3500.	3500.
91	FOREIGN LUXURY	3169.	3106.	3044.	2983.	2923.	2865.	2808.	2808.	2808.	2808.	2808.
101												
111	ENGINE DISPLACEMENT (CUBIC INCHES):											
121	DOMESTIC SUBCOMPACT	143.0	135.0	130.0	125.0	115.0	110.0	105.0	105.0	105.0	105.0	105.0
131	FOREIGN SUBCOMPACT	93.9	92.1	90.2	88.4	86.6	84.9	83.2	83.2	83.2	83.2	83.2
141	DOMESTIC COMPACT	217.0	207.0	198.0	183.0	168.0	158.0	150.0	150.0	150.0	150.0	150.0
151	FOREIGN COMPACT	114.5	112.8	111.1	109.4	107.8	106.2	104.6	104.6	104.6	104.6	104.6
161	MID-SIZE	263.0	248.0	238.0	218.0	198.0	189.0	180.0	180.0	180.0	180.0	180.0
171	FULL SIZE	287.0	274.0	259.0	242.0	224.0	216.0	210.0	210.0	210.0	210.0	210.0
181	DOMESTIC LUXURY	351.0	336.0	318.0	298.0	283.0	272.0	265.0	265.0	265.0	265.0	265.0
191	FOREIGN LUXURY	171.0	168.4	165.9	163.4	160.9	158.5	156.1	156.1	156.1	156.1	156.1
201												
211	PERCENT WITH AUTOMATIC TRANSMISSION:											
221	DOMESTIC SUBCOMPACT	60.00	57.50	55.00	52.50	47.50	42.50	40.00	40.00	40.00	40.00	40.00
231	FOREIGN SUBCOMPACT	35.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
241	DOMESTIC COMPACT	87.50	85.00	80.00	75.00	70.00	67.50	67.50	67.50	67.50	67.50	67.50
251	FOREIGN COMPACT	55.00	45.00	45.00	45.00	48.00	45.00	45.00	45.00	45.00	45.00	45.00
261	MID-SIZE	90.00	85.00	80.00	77.50	75.00	72.50	72.50	72.50	72.50	72.50	72.50
271	FULL SIZE	98.00	97.00	95.00	92.50	90.00	87.50	85.00	85.00	85.00	85.00	85.00
281	DOMESTIC LUXURY	97.00	96.00	95.00	94.00	92.00	90.00	88.00	88.00	88.00	88.00	88.00
291	FOREIGN LUXURY	60.00	50.00	49.00	47.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
301												
311	PERCENT WITH 4 CYLINDERS:											
321	DOMESTIC SUBCOMPACT	75.00	77.50	80.00	82.50	85.00	87.50	90.00	90.00	90.00	90.00	90.00
331	FOREIGN SUBCOMPACT	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00
341	DOMESTIC COMPACT	15.00	20.00	30.00	40.00	45.00	50.00	55.00	55.00	55.00	55.00	55.00
351	FOREIGN COMPACT	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00
361	MID-SIZE	0.0	2.50	5.00	7.50	10.00	15.00	15.00	15.00	15.00	15.00	15.00
371	FULL SIZE	0.0	2.50	5.00	7.50	10.00	12.50	15.00	15.00	15.00	15.00	15.00
381	DOMESTIC LUXURY	0.10	0.50	1.00	2.00	5.00	10.00	15.00	15.00	15.00	15.00	15.00
391	FOREIGN LUXURY	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00
401												
411	PERCENT WITH 6 CYLINDERS:											
421	DOMESTIC SUBCOMPACT	25.00	22.50	20.00	17.50	15.00	12.50	10.00	10.00	10.00	10.00	10.00
431	FOREIGN SUBCOMPACT	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
441	DOMESTIC COMPACT	60.00	55.00	50.00	45.00	40.00	35.00	30.00	30.00	30.00	30.00	30.00
451	FOREIGN COMPACT	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
461	MID-SIZE	20.00	35.00	50.00	65.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00
471	FULL SIZE	10.00	20.00	30.00	40.00	50.00	60.00	65.00	65.00	65.00	65.00	65.00
481	DOMESTIC LUXURY	5.00	10.00	15.00	20.00	25.00	30.00	35.00	35.00	35.00	35.00	35.00
491	FOREIGN LUXURY	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00

TABLE 20.00 AUTO CHARACTERISTICS

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	CURB WEIGHT (POUNDS)											
2	DOMESTIC SUBCOMPACT	2300.	2300.	2300.	2300.	2300.	2300.	2300.	2300.	2300.	2300.	2300.
3	FOREIGN SUBCOMPACT	2094.	2094.	2094.	2094.	2094.	2094.	2094.	2094.	2094.	2094.	2094.
4	DOMESTIC COMPACT	2700.	2700.	2700.	2700.	2700.	2700.	2700.	2700.	2700.	2700.	2700.
5	FOREIGN COMPACT	2698.	2698.	2698.	2698.	2698.	2698.	2698.	2698.	2698.	2698.	2698.
6	MID-SIZE	3000.	3000.	3000.	3000.	3000.	3000.	3000.	3000.	3000.	3000.	3000.
7	FULL SIZE	3200.	3200.	3200.	3200.	3200.	3200.	3200.	3200.	3200.	3200.	3200.
8	DOMESTIC LUXURY	3500.	3500.	3500.	3500.	3500.	3500.	3500.	3500.	3500.	3500.	3500.
9	FOREIGN LUXURY	2808.	2808.	2808.	2808.	2808.	2808.	2808.	2808.	2808.	2808.	2808.
10												
11	ENGINE DISPLACEMENT (CUBIC INCHES)											
12	DOMESTIC SUBCOMPACT	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
13	FOREIGN SUBCOMPACT	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2
14	DOMESTIC COMPACT	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
15	FOREIGN COMPACT	104.6	104.6	104.6	104.6	104.6	104.6	104.6	104.6	104.6	104.6	104.6
16	MID-SIZE	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0
17	FULL SIZE	210.0	210.0	210.0	210.0	210.0	210.0	210.0	210.0	210.0	210.0	210.0
18	DOMESTIC LUXURY	265.0	265.0	265.0	265.0	265.0	265.0	265.0	265.0	265.0	265.0	265.0
19	FOREIGN LUXURY	156.1	156.1	156.1	156.1	156.1	156.1	156.1	156.1	156.1	156.1	156.1
20												
21	PERCENT WITH AUTOMATIC TRANSMISSION											
22	DOMESTIC SUBCOMPACT	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
23	FOREIGN SUBCOMPACT	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
24	DOMESTIC COMPACT	67.50	67.50	67.50	67.50	67.50	67.50	67.50	67.50	67.50	67.50	67.50
25	FOREIGN COMPACT	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
26	MID-SIZE	72.50	72.50	72.50	72.50	72.50	72.50	72.50	72.50	72.50	72.50	72.50
27	FULL SIZE	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00
28	DOMESTIC LUXURY	88.00	88.00	88.00	88.00	88.00	88.00	88.00	88.00	88.00	88.00	88.00
29	FOREIGN LUXURY	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
30												
31	PERCENT WITH 4 CYLINDERS											
32	DOMESTIC SUBCOMPACT	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
33	FOREIGN SUBCOMPACT	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00
34	DOMESTIC COMPACT	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
35	FOREIGN COMPACT	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00	85.00
36	MID-SIZE	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
37	FULL SIZE	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
38	DOMESTIC LUXURY	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
39	FOREIGN LUXURY	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00
40												
41	PERCENT WITH 6 CYLINDERS											
42	DOMESTIC SUBCOMPACT	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
43	FOREIGN SUBCOMPACT	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
44	DOMESTIC COMPACT	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
45	FOREIGN COMPACT	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
46	MID-SIZE	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00
47	FULL SIZE	65.00	65.00	65.00	65.00	65.00	65.00	65.00	65.00	65.00	65.00	65.00
48	DOMESTIC LUXURY	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
49	FOREIGN LUXURY	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00

TABLE 21.00 GROWTH RATES, AUTO CHARACTERISTICS

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	CURB WEIGHT (POUNDS)											
2	DOMESTIC SUBCOMPACT	-1.9	-1.9	-2.0	-2.4	-2.5	-2.1	-1.3	0.0	0.0	0.0	0.0
3	FOREIGN SUBCOMPACT	-1.5	-1.5	-1.5	-1.5	-1.5	-1.5	-1.5	0.0	0.0	0.0	0.0
4	DOMESTIC COMPACT	-8.8	-1.6	-1.6	-3.3	-3.4	-1.8	-1.8	0.0	0.0	0.0	0.0
5	FOREIGN COMPACT	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	0.0	0.0	0.0	0.0
6	MID-SIZE	-4.3	-2.8	-1.4	-4.4	-4.6	-1.6	-1.6	0.0	0.0	0.0	0.0
7	FULL SIZE	-7.3	-2.6	-2.7	-4.2	-4.3	-1.5	-1.5	0.0	0.0	0.0	0.0
8	DOMESTIC LUXURY	-7.9	-2.4	-3.8	-3.9	-2.7	-1.4	-1.4	0.0	0.0	0.0	0.0
9	FOREIGN LUXURY	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	0.0	0.0	0.0	0.0
10												
11	ENGINE DISPLACEMENT (CUBIC INCHES)											
12	DOMESTIC SUBCOMPACT	-5.9	-5.6	-3.7	-3.8	-8.0	-4.3	-4.5	0.0	0.0	0.0	0.0
13	FOREIGN SUBCOMPACT	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	0.0	0.0	0.0	0.0
14	DOMESTIC COMPACT	-12.5	-4.6	-4.3	-7.6	-8.2	-6.0	-5.1	0.0	0.0	0.0	0.0
15	FOREIGN COMPACT	-1.5	-1.5	-1.5	-1.5	-1.5	-1.5	-1.5	0.0	0.0	0.0	0.0
16	MID-SIZE	-6.7	-5.7	-4.0	-8.4	-9.2	-4.5	-4.8	0.0	0.0	0.0	0.0
17	FULL SIZE	-9.2	-4.5	-5.5	-6.6	-7.4	-3.6	-2.8	0.0	0.0	0.0	0.0
18	DOMESTIC LUXURY	-9.3	-4.3	-5.4	-6.3	-5.0	-3.9	-2.6	0.0	0.0	0.0	0.0
19	FOREIGN LUXURY	-1.5	-1.5	-1.5	-1.5	-1.5	-1.5	-1.5	0.0	0.0	0.0	0.0
20												
21	PERCENT WITH AUTOMATIC TRANSMISSION											
22	DOMESTIC SUBCOMPACT	-4.00	-4.17	-4.35	-4.55	-9.52	-10.53	-5.88	0.0	0.0	0.0	0.0
23	FOREIGN SUBCOMPACT	-12.50	-28.57	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	DOMESTIC COMPACT	-2.78	-2.86	-5.88	-6.25	-6.67	-3.57	0.0	0.0	0.0	0.0	0.0
25	FOREIGN COMPACT	-15.38	-18.18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	MID-SIZE	-5.26	-5.56	-5.88	-3.13	-3.23	-3.33	0.0	0.0	0.0	0.0	0.0
27	FULL SIZE	-1.01	-1.02	-2.06	-2.63	-2.70	-2.78	-2.86	0.0	0.0	0.0	0.0
28	DOMESTIC LUXURY	-1.02	-1.03	-1.04	-1.05	-2.13	-2.17	-2.22	0.0	0.0	0.0	0.0
29	FOREIGN LUXURY	-14.29	-16.67	-2.00	-4.08	-4.26	0.0	0.0	0.0	0.0	0.0	0.0
30												
31	PERCENT WITH 4 CYLINDERS											
32	DOMESTIC SUBCOMPACT	3.45	3.33	3.23	3.13	3.03	2.94	2.86	0.0	0.0	0.0	0.0
33	FOREIGN SUBCOMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34	DOMESTIC COMPACT	50.00	33.33	50.00	33.33	12.50	11.11	10.00	0.0	0.0	0.0	0.0
35	FOREIGN COMPACT	-5.56	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36	MID-SIZE			100.00	50.00	33.33	50.00	0.0	0.0	0.0	0.0	0.0
37	FULL SIZE			100.00	50.00	33.33	25.00	20.00	0.0	0.0	0.0	0.0
38	DOMESTIC LUXURY		400.00	100.00	100.00	150.00	100.00	50.00	0.0	0.0	0.0	0.0
39	FOREIGN LUXURY	9.09	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40												
41	PERCENT WITH 6 CYLINDERS											
42	DOMESTIC SUBCOMPACT	-1.96	-10.00	-11.11	-12.50	-14.29	-16.67	-20.00	0.0	0.0	0.0	0.0
43	FOREIGN SUBCOMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44	DOMESTIC COMPACT	20.00	-8.33	-9.09	-10.00	-11.11	-12.50	-14.29	0.0	0.0	0.0	0.0
45	FOREIGN COMPACT	50.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
46	MID-SIZE	73.91	75.00	42.86	30.00	7.69	0.0	0.0	0.0	0.0	0.0	0.0
47	FULL SIZE	100.00	100.00	50.00	33.33	25.00	20.00	8.33	0.0	0.0	0.0	0.0
48	DOMESTIC LUXURY		100.00	50.00	33.33	25.00	20.00	16.67	0.0	0.0	0.0	0.0
49	FOREIGN LUXURY	-11.11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 21.00 GROWTH RATES, AUTO CHARACTERISTICS

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	CURB WEIGHT (POUNDS)											
2	DOMESTIC SUBCOMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	FOREIGN SUBCOMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	DOMESTIC COMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	FOREIGN COMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	MID-SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	FULL SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	DOMESTIC LUXURY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	FOREIGN LUXURY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10												
11	ENGINE DISPLACEMENT (CUBIC INCHES)											
12	DOMESTIC SUBCOMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	FOREIGN SUBCOMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	DOMESTIC COMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	FOREIGN COMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	MID-SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	FULL SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	DOMESTIC LUXURY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	FOREIGN LUXURY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20												
21	PERCENT WITH AUTOMATIC TRANSMISSION											
22	DOMESTIC SUBCOMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	FOREIGN SUBCOMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	DOMESTIC COMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	FOREIGN COMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	MID-SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	FULL SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	DOMESTIC LUXURY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	FOREIGN LUXURY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30												
31	PERCENT WITH 4 CYLINDERS											
32	DOMESTIC SUBCOMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33	FOREIGN SUBCOMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34	DOMESTIC COMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	FOREIGN COMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36	MID-SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37	FULL SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38	DOMESTIC LUXURY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39	FOREIGN LUXURY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40												
41	PERCENT WITH 6 CYLINDERS											
42	DOMESTIC SUBCOMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
43	FOREIGN SUBCOMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44	DOMESTIC COMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	FOREIGN COMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
46	MID-SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47	FULL SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
48	DOMESTIC LUXURY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
49	FOREIGN LUXURY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 22.00 FUEL CONSUMPTION EFFICIENCY FACTORS

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
11	CITY EFFICIENCY FACTOR; ALL CLASSES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	DOMESTIC SUBCOMPACT	2.00	4.00	8.00	12.00	16.00	19.00	21.00	21.00	21.00	21.00	21.00
31	FOREIGN SUBCOMPACT	1.00	2.00	4.00	6.00	8.00	10.00	10.00	10.00	10.00	10.00	10.00
41	DOMESTIC COMPACT	2.00	4.00	8.00	12.00	16.00	19.00	19.00	19.00	19.00	19.00	19.00
51	FOREIGN COMPACT	1.00	2.00	4.00	6.00	8.00	10.00	10.00	10.00	10.00	10.00	10.00
61	MID-SIZE	2.00	4.00	8.00	12.00	16.00	19.00	19.00	19.00	19.00	19.00	19.00
71	FULL SIZE	2.00	4.00	8.00	12.00	16.00	19.00	19.00	19.00	19.00	19.00	19.00
81	DOMESTIC LUXURY	2.00	4.00	8.00	12.00	16.00	19.00	19.00	19.00	19.00	19.00	19.00
91	FOREIGN LUXURY	1.00	2.00	4.00	6.00	8.00	10.00	10.00	10.00	10.00	10.00	10.00
101												
111	HIGHWAY EFFICIENCY FACTOR; ALL CLASSES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
121	DOMESTIC SUBCOMPACT	2.00	4.00	8.00	12.00	16.00	19.00	21.00	21.00	21.00	21.00	21.00
131	FOREIGN SUBCOMPACT	1.00	2.00	4.00	6.00	8.00	10.00	10.00	10.00	10.00	10.00	10.00
141	DOMESTIC COMPACT	2.00	4.00	8.00	12.00	16.00	19.00	19.00	19.00	19.00	19.00	19.00
151	FOREIGN COMPACT	1.00	2.00	4.00	6.00	8.00	10.00	10.00	10.00	10.00	10.00	10.00
161	MID-SIZE	2.00	4.00	8.00	12.00	16.00	19.00	19.00	19.00	19.00	19.00	19.00
171	FULL SIZE	2.00	4.00	8.00	12.00	16.00	19.00	19.00	19.00	19.00	19.00	19.00
181	DOMESTIC LUXURY	2.00	4.00	8.00	12.00	16.00	19.00	19.00	19.00	19.00	19.00	19.00
191	FOREIGN LUXURY	1.00	2.00	4.00	6.00	8.00	10.00	10.00	10.00	10.00	10.00	10.00

TABLE 22.00 FUEL CONSUMPTION EFFICIENCY FACTORS

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
11	CITY EFFICIENCY FACTOR; ALL CLASSES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	DOMESTIC SUBCOMPACT	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00
31	FOREIGN SUBCOMPACT	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
41	DOMESTIC COMPACT	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00
51	FOREIGN COMPACT	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
61	MID-SIZE	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00
71	FULL SIZE	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00
81	DOMESTIC LUXURY	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00
91	FOREIGN LUXURY	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
101												
111	HIGHWAY EFFICIENCY FACTOR; ALL CLASSES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
121	DOMESTIC SUBCOMPACT	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00
131	FOREIGN SUBCOMPACT	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
141	DOMESTIC COMPACT	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00
151	FOREIGN COMPACT	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
161	MID-SIZE	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00
171	FULL SIZE	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00
181	DOMESTIC LUXURY	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00
191	FOREIGN LUXURY	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00

TABLE 23.00 MISCELLANEOUS ASSUMPTIONS

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	DOMESTIC CLASS BASE PRICE/AVG (RATIO)											
2	SUBCOMPACT	0.729	0.728	0.727	0.726	0.725	0.724	0.723	0.722	0.721	0.720	0.719
3	COMPACT	0.833	0.833	0.833	0.833	0.833	0.833	0.833	0.833	0.833	0.833	0.833
4	MID-SIZE	0.929	0.929	0.929	0.929	0.929	0.929	0.929	0.929	0.929	0.929	0.929
5	FULL SIZE	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019
6	LUXURY	1.621	1.621	1.621	1.621	1.621	1.621	1.621	1.621	1.621	1.621	1.621
7												
8	DOM CLASS MAX OPT PRICE/AVG (RATIO)											
9	SUBCOMPACT	0.922	0.922	0.922	0.922	0.922	0.922	0.922	0.922	0.922	0.922	0.922
10	COMPACT	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969
11	MID-SIZE	1.017	1.017	1.017	1.017	1.017	1.017	1.017	1.017	1.017	1.017	1.017
12	FULL SIZE	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014
13	LUXURY	1.034	1.034	1.034	1.034	1.034	1.034	1.034	1.034	1.034	1.034	1.034
14												
15	CITY DRIVING, URBAN MILES / TOTAL	0.577	0.584	0.591	0.598	0.603	0.606	0.608	0.611	0.616	0.622	0.629
16												
17	EXPONENTIAL DECAY RATE, USED CAR PRICES											
18	SUBCOMPACT	0.192	0.192	0.192	0.192	0.192	0.192	0.192	0.192	0.192	0.192	0.192
19	COMPACT	0.163	0.163	0.163	0.163	0.163	0.163	0.163	0.163	0.163	0.163	0.163
20	MID-SIZE	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189
21	FULL SIZE	0.265	0.265	0.265	0.265	0.265	0.265	0.265	0.265	0.265	0.265	0.265
22	LUXURY	0.229	0.229	0.229	0.229	0.229	0.229	0.229	0.229	0.229	0.229	0.229

MARCH CONTROL FORECAST TO 2000

TABLE 23.10 GROWTH RATES, MISCELLANEOUS ASSUMPTIONS

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	DOMESTIC CLASS BASE PRICE/AVG (RATIO)											
2	SUBCOMPACT	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
3	COMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	MID-SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	FULL SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	LUXURY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7												
8	DOM CLASS MAX OPT PRICE/AVG (RATIO)											
9	SUBCOMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	COMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	MID-SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	FULL-SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	LUXURY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14												
15	CITY DRIVING, URBAN MILES / TOTAL	0.1	1.3	1.3	1.1	0.8	0.6	0.3	0.5	0.7	1.0	1.1
16												
17	EXPONENTIAL DECAY RATE, USED CAR PRICES											
18	SUBCOMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	COMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	MID-SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	FULL SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	LUXURY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 23.00 MISCELLANEOUS ASSUMPTIONS

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	DOMESTIC CLASS BASE PRICE/AVG (RATIO)											
2	SUBCOMPACT	0.718	0.717	0.716	0.715	0.714	0.713	0.712	0.711	0.710	0.709	0.708
3	COMPACT	0.833	0.833	0.833	0.833	0.833	0.833	0.833	0.833	0.833	0.833	0.833
4	MID-SIZE	0.929	0.929	0.929	0.929	0.929	0.929	0.929	0.929	0.929	0.929	0.929
5	FULL SIZE	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019
6	LUXURY	1.621	1.621	1.621	1.621	1.621	1.621	1.621	1.621	1.621	1.621	1.621
7												
8	DOM CLASS MAX OPT PRICE/AVG (RATIO)											
9	SUBCOMPACT	0.922	0.922	0.922	0.922	0.922	0.922	0.922	0.922	0.922	0.922	0.922
10	COMPACT	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969
11	MID-SIZE	1.017	1.017	1.017	1.017	1.017	1.017	1.017	1.017	1.017	1.017	1.017
12	FULL SIZE	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014
13	LUXURY	1.034	1.034	1.034	1.034	1.034	1.034	1.034	1.034	1.034	1.034	1.034
14												
15	CITY DRIVING, URBAN MILES / TOTAL	0.635	0.641	0.645	0.649	0.654	0.659	0.664	0.670	0.675	0.680	0.685
16												
17	EXPONENTIAL DECAY RATE, USED CAR PRICES											
18	SUBCOMPACT	0.192	0.192	0.192	0.192	0.192	0.192	0.192	0.192	0.192	0.192	0.192
19	COMPACT	0.163	0.163	0.163	0.163	0.163	0.163	0.163	0.163	0.163	0.163	0.163
20	MID-SIZE	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189
21	FULL SIZE	0.265	0.265	0.265	0.265	0.265	0.265	0.265	0.265	0.265	0.265	0.265
22	LUXURY	0.229	0.229	0.229	0.229	0.229	0.229	0.229	0.229	0.229	0.229	0.229

MARCH CONTROL FORECAST TO 2000

TABLE 23.10 GROWTH RATES, MISCELLANEOUS ASSUMPTIONS

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	DOMESTIC CLASS BASE PRICE/AVG (RATIO)											
2	SUBCOMPACT	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
3	COMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	MID-SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	FULL SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	LUXURY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7												
8	DOM CLASS MAX OPT PRICE/AVG (RATIO)											
9	SUBCOMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	COMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	MID-SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	FULL-SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	LUXURY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14												
15	CITY DRIVING, URBAN MILES / TOTAL	1.0	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.7
16												
17	EXPONENTIAL DECAY RATE, USED CAR PRICES											
18	SUBCOMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	COMPACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	MID-SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	FULL SIZE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	LUXURY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 24.00 CONSTANT ADJUSTMENTS

LINE	VAR LABEL I T E M	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	AVAGE0-20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	EPACDMPGC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	EPACDMPGH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	EPACEMPGC	-0.90	-0.90	-0.90	-0.90	-0.90	-0.90	-0.90	-0.90	-0.90	-0.90	-0.90
5	EPACEMPGH	-1.40	-1.40	-1.40	-1.40	-1.40	-1.40	-1.40	-1.40	-1.40	-1.40	-1.40
6	EPAEDMPGC	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
7	EPAEDMPGH	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	EPALDMPGC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	EPALDMPGH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	EPALEMPGC	-0.75	-0.75	-0.75	-0.75	-0.75	-0.75	-0.75	-0.75	-0.75	-0.75	-0.75
11	EPALEMPGH	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
12	EPAMDMPGC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	EPAMDMPGH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	EPASDMPGC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	EPASDMPGH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	EPASEMPGC	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
17	EPASEMPGH	-1.60	-1.60	-1.60	-1.60	-1.60	-1.60	-1.60	-1.60	-1.60	-1.60	-1.60
18	FRICTCR	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
19	GASAUTOADJ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	KEND*AY/LD	-0.006	-0.006	-0.006	-0.006	-0.006	-0.006	-0.006	-0.006	-0.006	-0.006	-0.006
21	OPMVHNR	-1.100	-1.100	-1.100	-1.100	-1.100	-1.100	-1.100	-1.100	-1.100	-1.100	-1.100
22	OPMVHAC+LEYEND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	PC4112-1741	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	PC4121-1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	PC4122-1001	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	PC4122-1783	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	PDCEDAVN	6.030	9.260	10.690	10.710	10.400	10.270	11.360	12.700	14.590	16.090	17.590
28	PER15+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	PINPHTA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	PU/NCT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	PU/NED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32	PU/NLT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33	PU/NMD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34	PU/NST	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	PUCEDAVN	0.094	0.094	0.094	0.094	0.094	0.094	0.094	0.094	0.094	0.094	0.094
36	PURMVHHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37	PUSEDN	90.000	90.000	90.000	90.000	90.000	90.000	90.000	90.000	90.000	90.000	90.000
38	SAMRRDAV	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39	SAMRRDAVD-V	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070
40	SAMRRDAVE-V	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
41	SCMVHA	-4.000	-4.000	-4.000	-4.000	-4.000	-4.000	-4.000	-4.000	-4.000	-4.000	-4.000
42	SCMVHAC+LF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
43	SCMVHACD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44	SCMVHACE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	SCMVHACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
46	SCMVHAED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47	SCMVHALD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
48	SCMVHALE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
49	SCMVHALT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50	SCMVHAMD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 24.00 CONSTANT ADJUSTMENTS

LINE	VAR LABEL ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	AVAGE0-20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	EPACDMPGC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	EPACDMPGH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	EPACEMPGC	-0.90	-0.90	-0.90	-0.90	-0.90	-0.90	-0.90	-0.90	-0.90	-0.90	-0.90
5	EPACEMPGH	-1.40	-1.40	-1.40	-1.40	-1.40	-1.40	-1.40	-1.40	-1.40	-1.40	-1.40
6	EPAFDMPGC	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
7	EPAFDMPGH	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	EPALDMPGC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	EPALDMPGH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	EPALEMPGC	-0.75	-0.75	-0.75	-0.75	-0.75	-0.75	-0.75	-0.75	-0.75	-0.75	-0.75
11	EPALEMPGH	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
12	EPAMDMPGC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	EPAMDMPGH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	EPASDMPGC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	EPASDMPGH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	EPASEMPGC	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
17	EPASEMPGH	-1.60	-1.60	-1.60	-1.60	-1.60	-1.60	-1.60	-1.60	-1.60	-1.60	-1.60
18	ERMCICR	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
19	GASAUTOADJ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	KENDAY/LD	-0.006	-0.006	-0.006	-0.006	-0.006	-0.006	-0.006	-0.006	-0.006	-0.006	-0.006
21	OMVHANR	-1.100	-1.100	-1.100	-1.100	-1.100	-1.100	-1.100	-1.100	-1.100	-1.100	-1.100
22	OPMVHAC+LFYEND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	PC4112-1741	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	PC4121-1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	PC4122-1001	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	PC4122-1783	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	PDCEDAVN	19.090	20.590	22.090	23.590	25.590	27.590	28.590	30.590	32.590	34.590	36.590
28	PER15+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	PINPHTA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	PU/NCT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	PU/NFD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32	PU/NLT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33	PU/NMD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34	PU/NST	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	PUCEDAVN	0.094	0.094	0.094	0.094	0.094	0.094	0.094	0.094	0.094	0.094	0.094
36	PURMVHHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37	PUSEDW	90.000	90.000	90.000	90.000	90.000	90.000	90.000	90.000	90.000	90.000	90.000
38	SAHRRDAV	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39	SAHRRDAVD-V	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070
40	SAHRRDAVF-V	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
41	SCMVHA	-4.000	-4.000	-4.000	-4.000	-4.000	-4.000	-4.000	-4.000	-4.000	-4.000	-4.000
42	SCMVHAC+LF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
43	SCMVHACD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44	SCMVHACF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	SCMVHACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
46	SCMVHAFD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47	SCMVHALD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
48	SCMVHALF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
49	SCMVHALT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50	SCMVHAMD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 24.00 CONSTANT ADJUSTMENTS

LINE	VAR LABEL I T E M	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	SCMVHASD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	SCMVHASF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	SCMVHAST	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	SCMVHATD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	SCMVHATF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	SHDC*LFTNR	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
7	SHRCD*A	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020
8	SHRCDTNR	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037
9	SHRCE*A	-0.000	-0.001	-0.001	-0.002	-0.003	-0.003	-0.004	-0.004	-0.005	-0.005	-0.005
10	SHRED*A	-0.050	-0.050	-0.050	-0.050	-0.050	-0.050	-0.050	-0.050	-0.050	-0.050	-0.050
11	SHREDTNR	-0.0260	-0.0260	-0.0260	-0.0260	-0.0260	-0.0260	-0.0260	-0.0260	-0.0260	-0.0260	-0.0260
12	SHRID*A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	SHRIDTNR	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
14	SHRLE*A	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006
15	SHRMD*A	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
16	SHRMDTNR	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046
17	SHRSD*A	0.016	0.017	0.017	0.018	0.019	0.019	0.019	0.019	0.019	0.019	0.019
18	SHRSDTNR	0.0071	0.0071	0.0071	0.0071	0.0071	0.0071	0.0071	0.0071	0.0071	0.0071	0.0071
19	SHRSE*A	-0.008	-0.008	-0.008	-0.009	-0.010	-0.010	-0.015	-0.015	-0.015	-0.015	-0.015
20	SHRSETNR	0.0253	0.0253	0.0253	0.0253	0.0253	0.0253	0.0253	0.0253	0.0253	0.0253	0.0253
21	USCDMPGC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	USCDMPGH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	USCDPOPTM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24	USCDPURASE-2	13.	-12.	-37.	-67.	-97.	-127.	-127.	-127.	-127.	-127.	-127.
25	USCDPUOPT-2	57.	51.	45.	39.	33.	27.	21.	15.	9.	9.	9.
26	USCDPUTRN	-7.	-7.	-7.	-7.	-7.	-7.	-7.	-7.	-7.	-7.	-7.
27	USCEMPGC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	USCEMPGH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	USCEPURASE-2	686.	686.	686.	686.	686.	686.	686.	686.	686.	686.	686.
30	USCEPUTRN	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	USEDMPGC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32	USEDMPGH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33	USEDPOPTM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34	USEDPURASE-2	34.	69.	104.	140.	184.	224.	224.	224.	224.	224.	224.
35	USEDPUOPT-2	15.	15.	15.	15.	15.	15.	15.	15.	15.	15.	15.
36	USEDPUTRN	14.	14.	14.	14.	14.	14.	14.	14.	14.	14.	14.
37	USLDMPGC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38	USLDMPGH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39	USLDPOPTM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40	USLDPURASE-2	285.	335.	390.	449.	500.	555.	555.	559.	559.	555.	555.
41	USLDPUOPT-2	13.	13.	13.	13.	13.	13.	13.	13.	13.	13.	13.
42	USLDPUTRN	17.	17.	17.	17.	17.	17.	17.	17.	17.	17.	17.
43	USLEMPGC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44	USLEMPGH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	USLEPURASE-2	902.	902.	902.	902.	902.	902.	902.	902.	902.	902.	902.
46	USLEPUTRN	7.	7.	7.	7.	7.	7.	7.	7.	7.	7.	7.
47	USMDMPGC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
48	USMDMPGH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
49	USMDPOPTM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50	USMDPURASE-2	230.	230.	230.	230.	230.	230.	230.	230.	230.	230.	230.

TABLE 24.00 CONSTANT ADJUSTMENTS

LINE	VAR LABEL	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	SCMVHA3D		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	SCMVHASF		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	SCMVHAST		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	SCMVHATD		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	SCMVHATF		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	SHRC*LFTNR		0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
7	SHRCD*A		0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020
8	SHRCDTNR		0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037
9	SHRCE*A		-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005
10	SHRED*A		-0.050	-0.050	-0.050	-0.050	-0.050	-0.050	-0.050	-0.050	-0.050	-0.050	-0.050
11	SHREDTNR		-0.0260	-0.0260	-0.0260	-0.0260	-0.0260	-0.0260	-0.0260	-0.0260	-0.0260	-0.0260	-0.0260
12	SHRLD*A		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	SHRLDTNR		-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
14	SHRLE*A		0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006
15	SHRMD*A		0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
16	SHRMDTNR		0.0046	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046	0.0046
17	SHRSD*A		0.019	0.019	0.019	0.019	0.019	0.019	0.019	0.019	0.019	0.019	0.019
18	SHRSDTNR		0.0071	0.0071	0.0071	0.0071	0.0071	0.0071	0.0071	0.0071	0.0071	0.0071	0.0071
19	SHRSE*A		-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015	-0.015
20	SHRSETNR		0.0253	0.0253	0.0253	0.0253	0.0253	0.0253	0.0253	0.0253	0.0253	0.0253	0.0253
21	USCDMPGC		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	USCDMPGH		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	USCDPOPTM		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24	USCDPUBASE-2		-127.	-127.	-127.	-127.	-127.	-127.	-127.	-127.	-127.	-127.	-127.
25	USCDPUOPT-2		9.	9.	9.	9.	9.	9.	9.	9.	9.	9.	9.
26	USCDPUTRN		-7.	-7.	-7.	-7.	-7.	-7.	-7.	-7.	-7.	-7.	-7.
27	USCEMPGC		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	USCEMPGH		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	USCEPUBASE-2		686.	686.	686.	686.	686.	686.	686.	686.	686.	686.	686.
30	USCEPUTRN		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	USEDMPGC		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32	USEDMPGH		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33	USEDPOPTM		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34	USEDPUBASE-2		224.	224.	224.	224.	224.	224.	224.	224.	224.	224.	224.
35	USEDPUOPT-2		15.	15.	15.	15.	15.	15.	15.	15.	15.	15.	15.
36	USEDPUTRN		14.	14.	14.	14.	14.	14.	14.	14.	14.	14.	14.
37	USLDMPGC		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38	USLDMPGH		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39	USLDPOPTM		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40	USLDPUBASE-2		555.	555.	555.	555.	555.	555.	555.	555.	555.	555.	555.
41	USLDPUOPT-2		13.	13.	13.	13.	13.	13.	13.	13.	13.	13.	13.
42	USLDPUTRN		17.	17.	17.	17.	17.	17.	17.	17.	17.	17.	17.
43	USLEMPGC		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44	USLEMPGH		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45	USLEPUBASE-2		902.	902.	902.	902.	902.	902.	902.	902.	902.	902.	902.
46	USLEPUTRN		7.	7.	7.	7.	7.	7.	7.	7.	7.	7.	7.
47	USMDMPGC		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
48	USMDMPGH		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
49	USMDPUPTM		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50	USMDPUBASE-2		230.	230.	230.	230.	230.	230.	230.	230.	230.	230.	230.

TABLE 24.00 CONSTANT ADJUSTMENTS

LINE	VAR LABEL	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	USNDPUMPT-2		-35.	-35.	-35.	-35.	-35.	-35.	-35.	-35.	-35.	-35.	-35.
2	USNDPUTRN		-3.	-3.	-3.	-3.	-3.	-3.	-3.	-3.	-3.	-3.	-3.
3	USSDMPGC		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	USSDMPGH		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	USSDPUPTH		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6	USSDPUBASE-2		-45.	-70.	-100.	-130.	-160.	-190.	-190.	-190.	-190.	-190.	-190.
7	USSDPUMPT-2		14.	10.	6.	2.	-2.	-6.	-10.	-10.	-10.	-10.	-10.
8	USSDPUTRN		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9	USSFMPGC		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	USSFMPGH		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	USSFPUBASF-2		242.	242.	242.	242.	242.	242.	242.	242.	242.	242.	242.
12	USSFPUTRN		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13	USTDPOPTMFN		103.	138.	173.	208.	243.	278.	313.	348.	383.	418.	453.
14	USTDPUBASEFW		103.	103.	103.	103.	103.	103.	103.	103.	103.	103.	103.
15	VMT/FM		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	VMT/K		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	VMTMVA-MC		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	VMTRA/K		0.070	0.075	0.070	0.060	0.050	0.040	0.030	0.020	0.020	0.020	0.020
19	VMTUA/K		0.090	0.090	0.070	0.040	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 24.00 CONSTANT ADJUSTMENTS

LINE	VAR LABEL	I T E M	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	USMDPUOPT-2		-35.	-35.	-35.	-35.	-35.	-35.	-35.	-35.	-35.	-35.	-35.
2	USMDPUTRN		-3.	-3.	-3.	-3.	-3.	-3.	-3.	-3.	-3.	-3.	-3.
3	USSDUPGC		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	USSDMPGH		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	USSDPUPTN		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6	USSDPUBASE-2		-190.	-190.	-190.	-190.	-190.	-190.	-190.	-190.	-190.	-190.	-190.
7	USSDPUOPT-2		-10.	-10.	-10.	-10.	-10.	-10.	-10.	-10.	-10.	-10.	-10.
8	USSDPUTRN		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9	USSEMPGC		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	USSEMPGH		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	USSEPUBASE-2		242.	242.	242.	242.	242.	242.	242.	242.	242.	242.	242.
12	USSEPUTRN		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13	USTDPOPTMFW		488.	523.	558.	593.	628.	663.	698.	733.	768.	803.	838.
14	USTDPUBASEFW		103.	103.	103.	103.	103.	103.	103.	103.	103.	103.	103.
15	VMT/FM		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	VMT/K		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	VMTMVA-MC		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	VMTRA/K		0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020
19	VMTUA/K		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 24.10 EXOGENOUS ASSUMPTIONS

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	DUMMIES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	EEIC	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3	EEICA	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4	EEECD	2.	4.	8.	12.	16.	19.	19.	19.	19.	19.	19.
5	EEECDA	3.	6.	11.	17.	23.	26.	26.	26.	26.	26.	26.
6	EEECE	1.	2.	4.	6.	8.	10.	10.	10.	10.	10.	10.
7	EEECEA	2.	3.	6.	9.	11.	14.	14.	14.	14.	14.	14.
8	EEECD	2.	4.	8.	12.	16.	19.	19.	19.	19.	19.	19.
9	EEECDA	3.	6.	11.	17.	23.	26.	26.	26.	26.	26.	26.
10	EEECD	2.	4.	8.	12.	16.	19.	19.	19.	19.	19.	19.
11	EEECDA	3.	6.	11.	17.	23.	26.	26.	26.	26.	26.	26.
12	EEECE	1.	2.	4.	6.	8.	10.	10.	10.	10.	10.	10.
13	EEECEA	2.	3.	6.	9.	11.	14.	14.	14.	14.	14.	14.
14	EEECHD	2.	4.	8.	12.	16.	19.	19.	19.	19.	19.	19.
15	EEECHDA	3.	6.	11.	17.	23.	26.	26.	26.	26.	26.	26.
16	EEEC3D	2.	4.	8.	12.	16.	19.	21.	21.	21.	21.	21.
17	EEEC3DA	3.	6.	11.	17.	23.	26.	28.	28.	28.	28.	28.
18	EEECSE	1.	2.	4.	6.	8.	10.	10.	10.	10.	10.	10.
19	EEECSEA	2.	3.	6.	9.	11.	14.	14.	14.	14.	14.	14.
20	EEEH	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	EEEHA	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22	EEEHCD	2.	4.	8.	12.	16.	19.	19.	19.	19.	19.	19.
23	EEEHCDA	3.	6.	11.	17.	23.	26.	26.	26.	26.	26.	26.
24	EEEHCE	1.	2.	4.	6.	8.	10.	10.	10.	10.	10.	10.
25	EEEHCEA	2.	3.	6.	9.	11.	14.	14.	14.	14.	14.	14.
26	EEEHED	2.	4.	8.	12.	16.	19.	19.	19.	19.	19.	19.
27	EEEHEDA	3.	6.	11.	17.	23.	26.	26.	26.	26.	26.	26.
28	EEEHLD	2.	4.	8.	12.	16.	19.	19.	19.	19.	19.	19.
29	EEEHLDA	3.	6.	11.	17.	23.	26.	26.	26.	26.	26.	26.
30	EEEHLE	1.	2.	4.	6.	8.	10.	10.	10.	10.	10.	10.
31	EEEHLEA	2.	3.	6.	9.	11.	14.	14.	14.	14.	14.	14.
32	EEEHOD	2.	4.	8.	12.	16.	19.	19.	19.	19.	19.	19.
33	EEEHODA	3.	6.	11.	17.	23.	26.	26.	26.	26.	26.	26.
34	EEEHSD	2.	4.	8.	12.	16.	19.	21.	21.	21.	21.	21.
35	EEEHSDA	3.	6.	11.	17.	23.	26.	28.	28.	28.	28.	28.
36	EEEHSE	1.	2.	4.	6.	8.	10.	10.	10.	10.	10.	10.
37	EEEHSEA	2.	3.	6.	9.	11.	14.	14.	14.	14.	14.	14.
38	FRMRPC	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
39	GMPHO2NER	0.943	0.943	0.943	0.943	0.943	0.943	0.943	0.943	0.943	0.943	0.943
40	GRPUT2HER	0.974	0.974	0.974	0.974	0.974	0.974	0.974	0.974	0.974	0.974	0.974
41	GRPUT2PTR	0.994	0.994	0.994	0.994	0.994	0.994	0.994	0.994	0.994	0.994	0.994
42	HCEM3+4/EM	0.309	0.312	0.313	0.315	0.316	0.317	0.318	0.318	0.318	0.319	0.319
43	HCEMS+/EM	0.130	0.122	0.117	0.111	0.106	0.102	0.096	0.094	0.090	0.087	0.083
44	HPOET	73.270	73.270	73.270	73.270	73.270	73.270	73.270	73.270	73.270	73.270	73.270
45	HPREPC/R	0.193	0.193	0.194	0.195	0.195	0.196	0.197	0.197	0.198	0.198	0.199
46	HPRESC/R	0.061	0.060	0.059	0.059	0.058	0.057	0.057	0.056	0.055	0.055	0.054
47	HPRSOTH/R	0.049	0.050	0.051	0.052	0.053	0.054	0.055	0.056	0.057	0.058	0.060
48	HPRTEX/P	0.057	0.056	0.056	0.056	0.056	0.056	0.056	0.056	0.055	0.055	0.055
49	HPRTRC/R	0.137	0.138	0.139	0.140	0.141	0.142	0.143	0.144	0.145	0.147	0.148
50	HPRSA/R	0.157	0.156	0.156	0.156	0.155	0.155	0.154	0.154	0.154	0.153	0.153

TABLE 24.10 EXOGENOUS ASSUMPTIONS

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	DUMMYTOS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	EFFC	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3	EFFC*	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4	EFFCCD	19.	19.	19.	19.	19.	19.	19.	19.	19.	19.	19.
5	EFFCCD*	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.
6	EFFCCF	10.	10.	10.	10.	10.	10.	10.	10.	10.	10.	10.
7	EFFCCF*	14.	14.	14.	14.	14.	14.	14.	14.	14.	14.	14.
8	EFFCFD	19.	19.	19.	19.	19.	19.	19.	19.	19.	19.	19.
9	EFFCFD*	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.
10	EFFCLD	19.	19.	19.	19.	19.	19.	19.	19.	19.	19.	19.
11	EFFCLD*	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.
12	EFFCLF	10.	10.	10.	10.	10.	10.	10.	10.	10.	10.	10.
13	EFFCLF*	14.	14.	14.	14.	14.	14.	14.	14.	14.	14.	14.
14	EFFCMD	19.	19.	19.	19.	19.	19.	19.	19.	19.	19.	19.
15	EFFCMD*	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.
16	EFFCSD	21.	21.	21.	21.	21.	21.	21.	21.	21.	21.	21.
17	EFFCSD*	28.	28.	28.	28.	28.	28.	28.	28.	28.	28.	28.
18	EFFCSF	10.	10.	10.	10.	10.	10.	10.	10.	10.	10.	10.
19	EFFCSF*	14.	14.	14.	14.	14.	14.	14.	14.	14.	14.	14.
20	EFFH	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	EFFH*	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22	EFFHCD	19.	19.	19.	19.	19.	19.	19.	19.	19.	19.	19.
23	EFFHCD*	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.
24	EFFHCF	10.	10.	10.	10.	10.	10.	10.	10.	10.	10.	10.
25	EFFHCF*	14.	14.	14.	14.	14.	14.	14.	14.	14.	14.	14.
26	EFFHFD	19.	19.	19.	19.	19.	19.	19.	19.	19.	19.	19.
27	EFFHFD*	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.
28	EFFHLD	19.	19.	19.	19.	19.	19.	19.	19.	19.	19.	19.
29	EFFHLD*	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.
30	EFFHLF	10.	10.	10.	10.	10.	10.	10.	10.	10.	10.	10.
31	EFFHLF*	14.	14.	14.	14.	14.	14.	14.	14.	14.	14.	14.
32	EFFHMD	19.	19.	19.	19.	19.	19.	19.	19.	19.	19.	19.
33	EFFHMD*	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.	26.
34	EFFHSD	21.	21.	21.	21.	21.	21.	21.	21.	21.	21.	21.
35	EFFHSD*	28.	28.	28.	28.	28.	28.	28.	28.	28.	28.	28.
36	EFFHSF	10.	10.	10.	10.	10.	10.	10.	10.	10.	10.	10.
37	EFFHSF*	14.	14.	14.	14.	14.	14.	14.	14.	14.	14.	14.
38	FRIMPC	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
39	GRTHO2/NER	0.943	0.943	0.943	0.943	0.943	0.943	0.943	0.943	0.943	0.943	0.943
40	GRPUT/NER	0.974	0.974	0.974	0.974	0.974	0.974	0.974	0.974	0.974	0.974	0.974
41	GRPUT/PTR	0.994	0.994	0.994	0.994	0.994	0.994	0.994	0.994	0.994	0.994	0.994
42	NCEMS+A/EM	0.319	0.320	0.321	0.321	0.322	0.323	0.324	0.325	0.326	0.327	0.328
43	NCEMS+/EM	0.080	0.077	0.075	0.073	0.071	0.069	0.068	0.065	0.064	0.063	0.063
44	OPJET	73.270	73.270	73.270	73.270	73.270	73.270	73.270	73.270	73.270	73.270	73.270
45	UPREMC/R	0.200	0.200	0.201	0.202	0.202	0.203	0.204	0.204	0.205	0.206	0.206
46	UPRESC/R	0.050	0.053	0.052	0.052	0.051	0.050	0.050	0.049	0.049	0.048	0.048
47	UPRMTN/R	0.061	0.062	0.063	0.064	0.066	0.067	0.068	0.070	0.071	0.073	0.074
48	UPRNEW/R	0.055	0.055	0.055	0.055	0.054	0.054	0.054	0.054	0.054	0.054	0.054
49	UPRPAC/R	0.149	0.150	0.151	0.152	0.153	0.154	0.156	0.157	0.158	0.159	0.160
50	UPRSA/R	0.152	0.152	0.152	0.151	0.151	0.150	0.150	0.150	0.149	0.149	0.148

TABLE 24.10 EXOGENOUS ASSUMPTIONS

LINE	I T E M	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	
1	[illegible]	0.077	0.077	0.076	0.076	0.076	0.076	0.075	0.075	0.075	0.074	0.0741	
2	[illegible]	0.101	0.101	0.102	0.103	0.103	0.104	0.104	0.105	0.106	0.106	0.1071	
3	[illegible]	38.89	39.54	40.13	40.55	40.81	40.91	40.78	40.39	39.76	38.89	37.851	
4	[illegible]	0.093	0.089	0.084	0.080	0.076	0.072	0.069	0.065	0.062	0.059	0.0561	
5	PC4113-1747	154.7	164.0	173.8	184.3	195.3	207.0	219.5	232.6	246.6	261.4	277.11	
6	PSCRAPAV	85.22	89.49	93.96	98.66	103.59	108.77	114.21	119.92	125.91	132.21	138.821	
7	PU/HADJCT	0.163	0.163	0.163	0.163	0.163	0.163	0.163	0.163	0.163	0.163	0.1631	
8	PU/HADJED	0.265	0.265	0.265	0.265	0.265	0.265	0.265	0.265	0.265	0.265	0.2651	
9	PU/HADJLT	0.229	0.229	0.229	0.229	0.229	0.229	0.229	0.229	0.229	0.229	0.2291	
10	PU/HADJMD	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.1891	
11	PU/HADJST	0.192	0.192	0.192	0.192	0.192	0.192	0.192	0.192	0.192	0.192	0.1921	
12	[illegible]	42.663	42.663	42.663	42.663	42.663	42.663	42.663	42.663	42.663	42.663	42.6631	
13	TXRCHD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1
14	TXRDHCT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1
15	TXRDHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1
16	TXRDHLT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1
17	TXRDHMD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1
18	TXRDHST	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1
19	TXRHCT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1
20	TXRHED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1
21	TXRHMD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1
22	TXRHST	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1
23	TXRMTDAUTO	5.02	5.18	5.34	5.50	5.66	5.82	5.98	6.14	6.30	6.47	6.641	
24	USCDCURB	3100.	3050.	3000.	2900.	2800.	2750.	2700.	2700.	2700.	2700.	2700.1	
25	USCDDISP	217.0	207.0	198.0	183.0	168.0	158.0	150.0	150.0	150.0	150.0	150.01	
26	USCDEAUTO	0.875	0.850	0.800	0.750	0.700	0.675	0.675	0.675	0.675	0.675	0.6751	
27	USCDEDD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1
28	USCDE4CYL	0.150	0.200	0.300	0.400	0.450	0.500	0.550	0.550	0.550	0.550	0.5501	
29	USCDE6CYL	0.600	0.550	0.500	0.450	0.400	0.350	0.300	0.300	0.300	0.300	0.3001	
30	USCDPURTH/T	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.9691	
31	USCDPURASE-2/T	0.833	0.833	0.833	0.833	0.833	0.833	0.833	0.833	0.833	0.833	0.8331	
32	USCFCURB	2865.	2837.	2808.	2780.	2752.	2725.	2698.	2698.	2698.	2698.	2698.1	
33	USCFDISP	114.5	112.8	111.1	109.4	107.8	106.2	104.6	104.6	104.6	104.6	104.61	
34	USCFEAUTO	0.550	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.4501	
35	USCFEDD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1
36	USCFE4CYL	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.8501	
37	USCFE6CYL	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.1501	
38	USFDCURB	3800.	3700.	3600.	3450.	3300.	3250.	3200.	3200.	3200.	3200.	3200.1	
39	USFDDISP	287.0	274.0	259.0	242.0	224.0	216.0	210.0	210.0	210.0	210.0	210.01	
40	USFDEAUTO	0.980	0.970	0.950	0.925	0.900	0.875	0.850	0.850	0.850	0.850	0.8501	
41	USFDEDD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1
42	USFDE4CYL	0.0	0.025	0.050	0.075	0.100	0.125	0.150	0.150	0.150	0.150	0.1501	
43	USFDE6CYL	0.100	0.200	0.300	0.400	0.500	0.600	0.650	0.650	0.650	0.650	0.6501	
44	USFDPURTH/T	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.0141	
45	USFDPURASE-2/T	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.0191	
46	USLDCURB	4100.	4000.	3850.	3700.	3600.	3550.	3500.	3500.	3500.	3500.	3500.1	
47	USLDDISP	351.0	336.0	318.0	298.0	283.0	272.0	265.0	265.0	265.0	265.0	265.01	
48	USLDEAUTO	0.970	0.960	0.950	0.940	0.920	0.900	0.880	0.880	0.880	0.880	0.8801	
49	USLDEDD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1

TABLE 24.10 EXOGENOUS ASSUMPTIONS

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	UBRHIC/R	0.074	0.073	0.073	0.073	0.072	0.072	0.072	0.072	0.071	0.071	0.0711
2	UBRHSC/R	0.108	0.108	0.109	0.110	0.110	0.111	0.112	0.112	0.113	0.114	0.1141
3	UBR20.29	37.29	36.77	36.00	35.53	34.64	34.00	33.51	33.18	33.03	32.98	32.641
4	UNVPACENR	0.053	0.051	0.048	0.046	0.043	0.041	0.039	0.037	0.035	0.034	0.0321
5	PC@113-1787	293.7	311.3	330.0	349.8	370.8	393.0	416.6	441.6	468.1	496.2	526.01
6	PSCRAPAV	145.76	153.05	160.70	168.74	177.17	186.03	195.33	205.10	215.35	226.12	237.431
7	PUZHADJCT	0.163	0.163	0.163	0.163	0.163	0.163	0.163	0.163	0.163	0.163	0.1631
8	PUZHADJED	0.265	0.265	0.265	0.265	0.265	0.265	0.265	0.265	0.265	0.265	0.2651
9	PUZHADJLT	0.229	0.229	0.229	0.229	0.229	0.229	0.229	0.229	0.229	0.229	0.2291
10	PUZHADJMD	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.1891
11	PUZHADJST	0.192	0.192	0.192	0.192	0.192	0.192	0.192	0.192	0.192	0.192	0.1921
12	RSHPVI	42.663	42.663	42.663	42.663	42.663	42.663	42.663	42.663	42.663	42.663	42.6631
13	TXRDCU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	TXRDCUCT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	TXRDCUED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	TXRDCULT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	TXRDCUMD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	TXRDCUST	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	TXRDICT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	TXRDIED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	TXRDIMD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	TXRDIST	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	TXRHIDAUTO	6.82	7.01	7.20	7.39	7.59	7.80	8.01	8.22	8.45	8.67	8.911
24	USCDCURB	2700.	2700.	2700.	2700.	2700.	2700.	2700.	2700.	2700.	2700.	2700.1
25	USCDDISP	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.01
26	USCDEAUTO	0.675	0.675	0.675	0.675	0.675	0.675	0.675	0.675	0.675	0.675	0.6751
27	USCDEOD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	USCDE4CYL	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.5501
29	USCDE6CYL	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.3001
30	USCDPURPTM/T	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.969	0.9691
31	USCDPURBASE-2/T	0.833	0.833	0.833	0.833	0.833	0.833	0.833	0.833	0.833	0.833	0.8331
32	USCECURB	2698.	2698.	2698.	2698.	2698.	2698.	2698.	2698.	2698.	2698.	2698.1
33	USCEDISP	104.6	104.6	104.6	104.6	104.6	104.6	104.6	104.6	104.6	104.6	104.61
34	USCEEAUTO	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.4501
35	USCEEOD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36	USCEE4CYL	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.8501
37	USCEE6CYL	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.1501
38	USEDCURB	3200.	3200.	3200.	3200.	3200.	3200.	3200.	3200.	3200.	3200.	3200.1
39	USEDDISP	210.0	210.0	210.0	210.0	210.0	210.0	210.0	210.0	210.0	210.0	210.01
40	USEDEAUTO	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.8501
41	USEDEOD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42	USEDE4CYL	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.1501
43	USEDE6CYL	0.650	0.650	0.650	0.650	0.650	0.650	0.650	0.650	0.650	0.650	0.6501
44	USEDPURPTM/T	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.0141
45	USEDPURBASE-2/T	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.0191
46	USLDCURB	3500.	3500.	3500.	3500.	3500.	3500.	3500.	3500.	3500.	3500.	3500.1
47	USLDDISP	265.0	265.0	265.0	265.0	265.0	265.0	265.0	265.0	265.0	265.0	265.01
48	USLDEAUTO	0.880	0.880	0.880	0.880	0.880	0.880	0.880	0.880	0.880	0.880	0.8801
49	USLDEOD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 24.10 EXOGENOUS ASSUMPTIONS

LINE	ITEM	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1	USLDF4CYL	0.001	0.005	0.010	0.020	0.050	0.100	0.150	0.150	0.150	0.150	0.150
2	USLDF6CYL	0.050	0.100	0.150	0.200	0.250	0.300	0.350	0.350	0.350	0.350	0.350
3	USLDPOPTH/T	1.034	1.034	1.034	1.034	1.034	1.034	1.034	1.034	1.034	1.034	1.034
4	USLDPURASE-2/T	1.621	1.621	1.621	1.621	1.621	1.621	1.621	1.621	1.621	1.621	1.621
5	USLECURB	3169.	3106.	3044.	2983.	2923.	2865.	2808.	2808.	2808.	2808.	2808.
6	USLEDISP	171.0	168.4	165.9	163.4	160.9	158.5	156.1	156.1	156.1	156.1	156.1
7	USLEFAUTO	0.600	0.500	0.490	0.470	0.450	0.450	0.450	0.450	0.450	0.450	0.450
8	USLEFDD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	USLEF4CYL	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600
10	USLEF6CYL	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400
11	USPDCURB	3550.	3450.	3400.	3250.	3100.	3050.	3000.	3000.	3000.	3000.	3000.
12	USPDDISP	263.0	248.0	238.0	218.0	198.0	189.0	180.0	180.0	180.0	180.0	180.0
13	USPDFAUTO	0.900	0.850	0.800	0.775	0.750	0.725	0.725	0.725	0.725	0.725	0.725
14	USPDFDD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	USPDF4CYL	0.0	0.025	0.050	0.075	0.100	0.150	0.150	0.150	0.150	0.150	0.150
16	USPDF6CYL	0.200	0.350	0.500	0.650	0.700	0.700	0.700	0.700	0.700	0.700	0.700
17	USPDPOPTH/T	1.017	1.017	1.017	1.017	1.017	1.017	1.017	1.017	1.017	1.017	1.017
18	USPDPURASE-2/T	0.929	0.929	0.929	0.929	0.929	0.929	0.929	0.929	0.929	0.929	0.929
19	USSDCURB	2600.	2550.	2500.	2440.	2380.	2330.	2300.	2300.	2300.	2300.	2300.
20	USSDDISP	143.0	135.0	130.0	125.0	115.0	110.0	105.0	105.0	105.0	105.0	105.0
21	USSDFAUTO	0.600	0.575	0.550	0.525	0.475	0.425	0.400	0.400	0.400	0.400	0.400
22	USSDFDD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	USSDF4CYL	0.750	0.775	0.800	0.825	0.850	0.875	0.900	0.900	0.900	0.900	0.900
24	USSDF6CYL	0.250	0.225	0.200	0.175	0.150	0.125	0.100	0.100	0.100	0.100	0.100
25	USSDPOPTH/T	0.922	0.922	0.922	0.922	0.922	0.922	0.922	0.922	0.922	0.922	0.922
26	USSDPURASE-2/T	0.729	0.728	0.727	0.726	0.725	0.724	0.723	0.722	0.721	0.720	0.719
27	USSECURB	2293.	2258.	2224.	2191.	2158.	2126.	2094.	2094.	2094.	2094.	2094.
28	USSEDISP	93.9	92.1	90.2	88.4	86.6	84.9	83.2	83.2	83.2	83.2	83.2
29	USSEFAUTO	0.350	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250
30	USSEFDD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	USSEF4CYL	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
32	USSEF6CYL	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050

TABLE 24.10 EXOGENOUS ASSUMPTIONS

LINE	ITEM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1	USLDEFACYL	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.1501
2	USLDEF6CYL	0.350	0.350	0.350	0.350	0.350	0.350	0.350	0.350	0.350	0.350	0.3501
3	USLDPORTM/T	1.034	1.034	1.034	1.034	1.034	1.034	1.034	1.034	1.034	1.034	1.0341
4	USLDPURASE-2/T	1.621	1.621	1.621	1.621	1.621	1.621	1.621	1.621	1.621	1.621	1.621
5	USLEFURB	2808.	2808.	2808.	2808.	2808.	2808.	2808.	2808.	2808.	2808.	2808.1
6	USLEDISP	156.1	156.1	156.1	156.1	156.1	156.1	156.1	156.1	156.1	156.1	156.11
7	USLEFAUTO	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.4501
8	USLEFDD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	USLEF4CYL	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.6001
10	USLEF6CYL	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.4001
11	USMDFURB	3000.	3000.	3000.	3000.	3000.	3000.	3000.	3000.	3000.	3000.	3000.1
12	USMDDISP	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.01
13	USMDFAUTO	0.725	0.725	0.725	0.725	0.725	0.725	0.725	0.725	0.725	0.725	0.7251
14	USMDFDD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	USMDF4CYL	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.1501
16	USMDF6CYL	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.7001
17	USMDPORTM/T	1.017	1.017	1.017	1.017	1.017	1.017	1.017	1.017	1.017	1.017	1.0171
18	USMDPURASE-2/T	0.929	0.929	0.929	0.929	0.929	0.929	0.929	0.929	0.929	0.929	0.9291
19	USSDFURB	2300.	2300.	2300.	2300.	2300.	2300.	2300.	2300.	2300.	2300.	2300.1
20	USSDDISP	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.01
21	USSDFAUTO	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.4001
22	USSDFDD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	USSDF4CYL	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.9001
24	USSDF6CYL	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.1001
25	USSDPORTM/T	0.922	0.922	0.922	0.922	0.922	0.922	0.922	0.922	0.922	0.922	0.9221
26	USSDPURASE-2/T	0.718	0.717	0.716	0.715	0.714	0.713	0.712	0.711	0.710	0.709	0.7081
27	USSEFURB	2094.	2094.	2094.	2094.	2094.	2094.	2094.	2094.	2094.	2094.	2094.1
28	USSEDISP	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.21
29	USSEFAUTO	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.2501
30	USSEFDD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	USSEF4CYL	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.9501
32	USSEF6CYL	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.0501

APPENDIX B

EXTENDED MPG STANDARDS SCENARIO

TABLE 1.00 SELECTED MARKET INDICATORS

LINE	ITEM		1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
1	CARS IN OPERATION, YR-END	MILL AUTOS											
2	EXTENDED MPG STANDARDS		115.208	117.125	119.274	121.351	123.293	125.399	127.452	129.625	132.049	134.342	136.570
3	CONTROL SOLUTION		115.429	117.678	120.243	122.706	124.821	126.773	128.423	130.093	132.177	134.413	136.743
4	DIFFERENCE		-0.221	-0.553	-0.969	-1.355	-1.569	-1.374	-0.970	-0.468	-0.128	-0.071	-0.173
5	% DIFFERENCE		-0.19	-0.47	-0.81	-1.10	-1.26	-1.08	-0.76	-0.36	-0.10	-0.05	-0.13
6													
7	NEW CAR RETAIL SALES	MILL AUTOS											
8	EXTENDED MPG STANDARDS		12.406	12.607	12.478	12.594	12.677	13.304	13.647	14.037	14.081	14.271	14.402
9	CONTROL SOLUTION		12.640	12.697	12.470	12.512	12.565	12.931	13.426	13.928	14.056	14.266	14.368
10	DIFFERENCE		-0.234	-0.090	0.009	0.082	0.112	0.373	0.221	0.109	0.025	0.006	0.035
11	% DIFFERENCE		-1.85	-0.71	0.07	0.65	0.89	2.88	1.65	0.79	0.18	0.04	0.24
12													
13	TOTAL NEW CAR REGISTRATIONS	MILL AUTOS											
14	EXTENDED MPG STANDARDS		12.134	12.327	12.198	12.307	12.384	12.997	13.330	13.711	13.751	13.935	14.062
15	CONTROL SOLUTION		12.364	12.416	12.189	12.227	12.275	12.631	13.113	13.603	13.727	13.930	14.028
16	DIFFERENCE		-0.230	-0.089	0.009	0.080	0.109	0.366	0.217	0.107	0.024	0.005	0.033
17	% DIFFERENCE		-1.86	-0.71	0.07	0.65	0.88	2.90	1.65	0.79	0.18	0.04	0.24
18													
19	DOMESTIC	MILL AUTOS											
20	EXTENDED MPG STANDARDS		10.119	10.217	10.048	10.076	10.064	10.536	10.759	11.034	11.028	11.146	11.221
21	CONTROL SOLUTION		10.318	10.298	10.041	10.014	9.992	10.236	10.582	10.948	11.012	11.149	11.203
22	DIFFERENCE		-0.202	-0.081	0.007	0.062	0.072	0.301	0.176	0.086	0.016	-0.003	0.018
23	% DIFFERENCE		-1.96	-0.79	0.07	0.61	0.72	2.94	1.67	0.78	0.15	-0.03	0.16
24													
25	FOREIGN	MILL AUTOS											
26	EXTENDED MPG STANDARDS		2.018	2.111	2.149	2.231	2.320	2.461	2.571	2.676	2.723	2.789	2.841
27	CONTROL SOLUTION		2.047	2.118	2.148	2.212	2.284	2.396	2.531	2.659	2.719	2.781	2.826
28	DIFFERENCE		-0.028	-0.007	0.002	0.018	0.036	0.065	0.040	0.021	0.008	0.008	0.015
29	% DIFFERENCE		-1.37	-0.35	0.09	0.83	1.59	2.72	1.59	0.80	0.31	0.30	0.54
30													
31	% FOREIGN												
32	EXTENDED MPG STANDARDS		16.63	17.12	17.62	18.13	18.73	18.93	19.29	19.52	19.80	20.01	20.20
33	CONTROL SOLUTION		16.55	17.06	17.62	18.09	18.60	18.97	19.30	19.52	19.78	19.96	20.14
34	DIFFERENCE		0.08	0.06	0.00	0.03	0.13	-0.03	-0.01	0.00	0.03	0.05	0.06
35	% DIFFERENCE		0.50	0.37	0.02	0.18	0.70	-0.17	-0.06	0.01	0.13	0.26	0.30
36	% SMALL CARS (SUB + COMP)												
37	EXTENDED MPG STANDARDS		45.96	46.41	47.06	47.66	48.32	48.49	48.73	48.88	49.21	49.52	49.89
38	CONTROL SOLUTION		45.82	46.21	46.84	47.35	47.88	48.19	48.43	48.58	48.91	49.22	49.60
39	DIFFERENCE		0.15	0.20	0.22	0.31	0.44	0.30	0.30	0.29	0.30	0.30	0.29
40	% DIFFERENCE		0.32	0.43	0.48	0.65	0.91	0.62	0.62	0.61	0.60	0.61	0.59
41													
42	TOTAL AUTOS SCRAPPED	MILL AUTOS											
43	EXTENDED MPG STANDARDS		10.749	10.411	10.048	10.230	10.483	10.850	11.277	11.538	11.328	11.642	11.834
44	CONTROL SOLUTION		10.758	10.167	9.624	9.763	10.160	10.680	11.464	11.933	11.643	11.693	11.699
45	DIFFERENCE		-0.009	0.244	0.424	0.466	0.322	0.171	-0.186	-0.395	-0.315	-0.051	0.135
46	% DIFFERENCE		-0.08	2.40	4.41	4.78	3.17	1.60	-1.63	-3.31	-2.71	-0.44	1.16
47													
48	VEHICLE MILES TRAVELLED	BILL MILES											
49	EXTENDED MPG STANDARDS		1535.57	1595.64	1653.90	1712.54	1772.59	1835.14	1895.67	1957.72	2022.08	2085.45	2149.48
50	CONTROL SOLUTION		1536.72	1589.19	1638.92	1685.99	1731.25	1776.39	1820.88	1866.28	1913.69	1961.17	2010.89
51	DIFFERENCE		0.85	6.44	14.98	26.54	41.34	58.75	74.79	91.44	108.40	124.28	138.59
52	% DIFFERENCE		0.06	0.41	0.91	1.57	2.39	3.31	4.11	4.90	5.66	6.34	6.89

TABLE 1.00 SELECTED MARKET INDICATORS

LINE	ITEM		1997	1998	1999	2000
1	CARS IN OPERATION: YR-END	MILL AUTOS				
2	EXTENDED MPG STANDARDS		138.941	141.392	143.876	146.336
3	CONTROL SOLUTION		139.226	141.683	144.049	146.347
4	DIFFERENCE		-0.286	-0.291	-0.173	-0.011
5	% DIFFERENCE		-0.21	-0.21	-0.12	-0.01
6						
7	NEW CAR RETAIL SALES	MILL AUTOS				
8	EXTENDED MPG STANDARDS		14.754	15.003	15.259	15.488
9	CONTROL SOLUTION		14.699	14.946	15.235	15.507
10	DIFFERENCE		0.054	0.057	0.024	-0.019
11	% DIFFERENCE		0.37	0.38	0.16	-0.12
12						
13	TOTAL NEW CAR REGISTRATIONS	MILL AUTOS				
14	EXTENDED MPG STANDARDS		14.402	14.645	14.895	15.119
15	CONTROL SOLUTION		14.350	14.590	14.872	15.139
16	DIFFERENCE		0.052	0.055	0.023	-0.020
17	% DIFFERENCE		0.36	0.37	0.15	-0.13
18						
19	DOMESTIC	MILL AUTOS				
20	EXTENDED MPG STANDARDS		11.442	11.616	11.809	11.982
21	CONTROL SOLUTION		11.412	11.585	11.806	12.017
22	DIFFERENCE		0.031	0.031	0.003	-0.035
23	% DIFFERENCE		0.27	0.27	0.02	-0.29
24						
25	FOREIGN	MILL AUTOS				
26	EXTENDED MPG STANDARDS		2.960	3.029	3.086	3.137
27	CONTROL SOLUTION		2.938	3.005	3.066	3.121
28	DIFFERENCE		0.022	0.024	0.020	0.016
29	% DIFFERENCE		0.73	0.78	0.64	0.50
30						
31	% FOREIGN					
32	EXTENDED MPG STANDARDS		20.55	20.68	20.72	20.79
33	CONTROL SOLUTION		20.48	20.60	20.62	20.62
34	DIFFERENCE		0.08	0.08	0.10	0.13
35	% DIFFERENCE		0.37	0.41	0.49	0.63
36	% SMALL CARS (SUB + COMP)					
37	EXTENDED MPG STANDARDS		50.26	50.47	50.63	50.77
38	CONTROL SOLUTION		49.98	50.18	50.34	50.46
39	DIFFERENCE		0.29	0.29	0.29	0.31
40	% DIFFERENCE		0.58	0.57	0.58	0.61
41						
42	TOTAL AUTOS SCRAPPED	MILL AUTOS				
43	EXTENDED MPG STANDARDS		12.031	12.193	12.411	12.659
44	CONTROL SOLUTION		11.866	12.134	12.506	12.841
45	DIFFERENCE		0.165	0.059	-0.095	-0.182
46	% DIFFERENCE		1.39	0.49	-0.76	-1.42
47						
48	VEHICLE MILES TRAVELLED	BILL MILES				
49	EXTENDED MPG STANDARDS		2213.12	2278.59	2346.19	2411.06
50	CONTROL SOLUTION		2061.91	2116.08	2173.48	2229.19
51	DIFFERENCE		151.21	162.52	172.71	181.87
52	% DIFFERENCE		7.33	7.68	7.95	8.16

TABLE 1.00 SELECTED MARKET INDICATORS

LINE	ITEM		1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
1	TOTAL FLEET MPG (MFFA EST.)												
2	EXTENDED MPG STANDARDS		17.72	18.48	19.29	20.18	21.09	22.03	22.82	23.50	24.08	24.58	25.01
3	CONTROL SOLUTION		17.69	18.28	18.80	19.30	19.73	20.11	20.40	20.59	20.70	20.78	20.84
4	DIFFERENCE		0.03	0.21	0.49	0.87	1.36	1.92	2.42	2.91	3.38	3.80	4.17
5	% DIFFERENCE		0.16	1.14	2.60	4.52	6.89	9.57	11.87	14.13	16.32	18.30	20.00
6													
7	AUTO MOTOR FUEL CONSUMPTION	BILL GAL											
8	EXTENDED MPG STANDARDS		86.65	86.32	85.73	84.88	84.03	83.30	83.06	83.30	83.98	84.84	85.95
9	CONTROL SOLUTION		86.74	86.96	87.16	87.34	87.73	88.35	89.26	90.63	92.45	94.38	96.48
10	DIFFERENCE		-0.09	-0.64	-1.43	-2.46	-3.70	-5.05	-6.19	-7.33	-8.47	-9.55	-10.54
11	% DIFFERENCE		-0.10	-0.73	-1.64	-2.81	-4.21	-5.71	-6.94	-8.09	-9.16	-10.11	-10.92
12													
13	AUTO MOTOR FUEL EXPENDITURES	BILL 72 $											
14	EXTENDED MPG STANDARDS		30.86	30.92	30.88	30.74	30.61	30.34	30.25	30.34	30.59	30.90	31.30
15	CONTROL SOLUTION		30.90	31.15	31.39	31.63	31.95	32.18	32.51	33.01	33.67	34.37	35.14
16	DIFFERENCE		-0.03	-0.23	-0.52	-0.89	-1.35	-1.84	-2.25	-2.67	-3.08	-3.48	-3.84
17	% DIFFERENCE		-0.10	-0.73	-1.64	-2.81	-4.21	-5.71	-6.94	-8.09	-9.16	-10.11	-10.92
18													
19	NEW CAR FLEET MPG (EPA EST.)												
20	EXTENDED MPG STANDARDS		29.33	30.61	32.13	33.62	35.10	35.10	35.10	35.09	35.10	35.10	35.12
21	CONTROL SOLUTION		28.04	28.06	28.09	28.11	28.14	28.16	28.17	28.18	28.19	28.21	28.23
22	DIFFERENCE		1.29	2.55	4.04	5.51	6.96	6.95	6.93	6.92	6.91	6.90	6.89
23	% DIFFERENCE		4.58	9.10	14.39	19.61	24.74	24.67	24.60	24.55	24.50	24.46	24.42
24													
25	DOMESTIC												
26	EXTENDED MPG STANDARDS		28.87	30.24	31.91	33.58	35.25	35.25	35.25	35.24	35.24	35.24	35.26
27	CONTROL SOLUTION		27.48	27.48	27.49	27.49	27.51	27.51	27.51	27.50	27.50	27.51	27.52
28	DIFFERENCE		1.38	2.76	4.42	6.08	7.75	7.74	7.74	7.74	7.73	7.73	7.74
29	% DIFFERENCE		5.03	10.06	16.09	22.13	28.16	28.15	28.14	28.13	28.12	28.11	28.11
30													
31	FOREIGN												
32	EXTENDED MPG STANDARDS		31.88	32.55	33.19	33.85	34.47	34.48	34.49	34.51	34.54	34.56	34.58
33	CONTROL SOLUTION		31.24	31.28	31.29	31.31	31.30	31.31	31.32	31.34	31.37	31.39	31.41
34	DIFFERENCE		0.64	1.27	1.90	2.54	3.17	3.17	3.17	3.17	3.17	3.17	3.17
35	% DIFFERENCE		2.03	4.06	6.09	8.11	10.13	10.12	10.12	10.11	10.10	10.10	10.09
36													
37	AVERAGE NEW CAR PURCHASE COST	DOLLARS											
38	EXTENDED MPG STANDARDS		11878.	12695.	13541.	14417.	15366.	16153.	17038.	17903.	18904.	19900.	20931.
39	CONTROL SOLUTION		11710.	12376.	13054.	13740.	14476.	15253.	16082.	16930.	17831.	18760.	19730.
40	DIFFERENCE		168.	319.	487.	677.	890.	899.	956.	1012.	1073.	1139.	1201.
41	% DIFFERENCE		1.43	2.57	3.73	4.93	6.15	5.90	5.98	5.98	6.02	6.07	6.09
42													
43	NEW CAR EXPENDITURES	BILL 72 $											
44	EXTENDED MPG STANDARDS		41.24	42.41	42.52	43.48	44.37	47.33	49.38	51.66	52.61	54.15	55.68
45	CONTROL SOLUTION		41.90	42.49	42.15	42.73	43.39	45.38	47.91	50.55	51.77	53.33	54.71
46	DIFFERENCE		-0.67	-0.07	0.37	0.75	0.98	1.95	1.46	1.12	0.84	0.82	0.96
47	% DIFFERENCE		-1.59	-0.18	0.88	1.75	2.26	4.30	3.06	2.21	1.62	1.53	1.76
48													
49	AVG CAP. COST PER MILE	CENTS/MILE											
50	EXTENDED MPG STANDARDS		42.64	45.25	47.95	50.79	53.76	56.84	60.17	63.66	67.35	71.24	75.38
51	CONTROL SOLUTION		42.61	45.25	47.97	50.81	53.74	56.89	60.20	63.68	67.36	71.23	75.36
52	DIFFERENCE		0.02	0.01	-0.02	-0.02	0.02	-0.05	-0.04	-0.02	-0.01	0.01	0.02
53	% DIFFERENCE		0.05	0.02	-0.05	-0.04	0.03	-0.09	-0.06	-0.03	-0.01	0.02	0.03

TABLE 1.00 SELECTED MARKET INDICATORS

LINE	ITEM		1997	1998	1999	2000
1	TOTAL FLEET MPG (MEFA EST.)					
2	EXTENDED MPG STANDARDS		25.37	25.62	25.80	25.91
3	CONTROL SOLUTION		20.90	20.92	20.93	20.92
4	DIFFERENCE		4.47	4.70	4.87	5.00
5	% DIFFERENCE		21.39	22.48	23.29	23.90
6						
7	AUTO MOTOR FUEL CONSUMPTION	BILL GAL				
8	EXTENDED MPG STANDARDS		87.24	88.93	90.94	93.07
9	CONTROL SOLUTION		98.67	101.16	103.86	106.58
10	DIFFERENCE		-11.43	-12.23	-12.93	-13.54
11	% DIFFERENCE		-11.58	-12.09	-12.45	-12.70
12						
13	AUTO MOTOR FUEL EXPENDITURES	BILL 72 $				
14	EXTENDED MPG STANDARDS		31.77	32.39	33.12	33.89
15	CONTROL SOLUTION		35.93	36.84	37.83	38.82
16	DIFFERENCE		-4.16	-4.45	-4.71	-4.93
17	% DIFFERENCE		-11.58	-12.09	-12.45	-12.70
18						
19	NEW CAR FLEET MPG (EPA EST.)					
20	EXTENDED MPG STANDARDS		35.13	35.13	35.14	35.14
21	CONTROL SOLUTION		28.25	28.26	28.27	28.27
22	DIFFERENCE		6.88	6.87	6.87	6.88
23	% DIFFERENCE		24.35	24.33	24.32	24.32
24						
25	DOMESTIC					
26	EXTENDED MPG STANDARDS		35.27	35.28	35.29	35.28
27	CONTROL SOLUTION		27.53	27.54	27.55	27.54
28	DIFFERENCE		7.74	7.74	7.74	7.74
29	% DIFFERENCE		28.10	28.10	28.10	28.10
30						
31	FOREIGN					
32	EXTENDED MPG STANDARDS		34.58	34.59	34.60	34.62
33	CONTROL SOLUTION		31.41	31.42	31.43	31.45
34	DIFFERENCE		3.17	3.17	3.17	3.17
35	% DIFFERENCE		10.09	10.09	10.08	10.08
36						
37	AVERAGE NEW CAR PURCHASE COST	DOLLARS				
38	EXTENDED MPG STANDARDS		22015.	23159.	24346.	25599.
39	CONTROL SOLUTION		20747.	21821.	22933.	24103.
40	DIFFERENCE		1268.	1338.	1413.	1496.
41	% DIFFERENCE		6.11	6.13	6.16	6.21
42						
43	NEW CAR EXPENDITURES	BILL 72 $				
44	EXTENDED MPG STANDARDS		57.95	59.91	61.96	63.98
45	CONTROL SOLUTION		56.85	58.74	60.87	63.01
46	DIFFERENCE		1.10	1.16	1.09	0.97
47	% DIFFERENCE		1.93	1.98	1.79	1.54
48						
49	AVG CAP. COST PER MILE	CENTS/MILE				
50	EXTENDED MPG STANDARDS		79.56	83.99	88.70	93.71
51	CONTROL SOLUTION		79.52	83.94	88.63	93.62
52	DIFFERENCE		0.04	0.05	0.07	0.10
53	% DIFFERENCE		0.04	0.06	0.08	0.11

APPENDIX C

REPORT OF NEW TECHNOLOGY

The work performed under this contract has led to an econometric model which is both innovative and state of the art. It provides long-run policy analysis and forecasting of annual trends in the U.S. motor-vehicle market, given various policy options and alternative socioeconomic futures.

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